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ABSTRACT

This report documents the activities of the Research Network, a coordinated effort of the International Development Research Center (IDRC) and the Human Development and Family Studies (HDFS) Department of Baroda University (India) during the period January 1990 to June 1993. The Research Network aimed to establish a network of consultative services for strengthening research competence of mid-career professionals in tenured positions in HDFS departments across India. Intensive inservice training for participants was provided through a series of workshops on preparing research proposals, developing a plan for statistical analysis, report writing, and writing papers for publications and dissemination through oral presentation. An interdisciplinary orientation was adopted, and consultants from various disciplines such as psychology, sociology, social work, linguistics, and psychometry participated. The report is organized into three parts. Part 1 deals with the project's aims; organizational framework and proceedings of the workshops, conferences, and symposia; project evaluation; and future directions. Part 2 presents a summary report of the 5 research studies of 10 participants. The research topics were: (1) problems in learning to read and write in Indian languages; (2) evaluation of the preschool component of the Integrated Child Development Scheme; (3) development of self-esteem among women; (4) time use by college students; and (5) women's work and child care. Part 3 contains 13 appendices including lists of participants and papers presented, and summaries of speeches presented. References are included with the research reports. (TJQ)

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REACHING OUT

IDRC-HDFS RESEARCH NETWORK (INDIA)

FINAL REPORT
1993

T.S SARASWATHI
Project Co-ordinator

DEPARTMENT OF HUMAN DEVELOPMENT & FAMILY STUDIES

M.S.UNIVERSITY OF BARODA
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IDRC-HDFS RESEARCH NETWORK (INDIA)

FINAL REPORT
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Shruti Bhargava
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INDIA

Dedicated

to late Susanne Mowat, former Senior Program Officer, Social Sciences Division , Regional Office of International Development Research Centre of Canada, New Delhi, India, for her inspiration, friendship, support and guidance.

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- *The assistant project co-ordinators Ms. Neeta Krishna (1991-1992) and Ms. Shruti Bhargava (1992).*
- *The IDRC-HDFS Network office staff. 1990-1993*
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- *The countless friends and well-wishers who kept us going with their support particularly during difficult times when one wanted to curl up and die.*

T.S. Saraswathi	*Project Coordinator*
Amita Verma *Veena Mistry* *Baljit Kaur* *Shagufa Kapadia*	*Project Team Members*

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Executive Summary

The present report documents the activities of the IDRC-HDFS Research Network (India) co-ordinated during the period January 1990 to June 1993. The project was supported financially by the International Development Research Centre of Canada and administratively by the Maharaja Sayajirao University of Baroda, India.

The Research Network aimed at establishing a network of consultative services for strengthening the research competence of mid career professionals in tenured positions in various Departments of Human Development & Family Studies across the country. Ten participants were identified from different regions namely Assam, Rajasthan, Jammu, Punjab, Haryana, Maharashtra and Tamil Nadu. Intensive inservice training was provided through a series of workshops on preparing research proposals, developing a plan for statistical analysis, report writing and writing papers for publications and dissemination through oral presentation. During the project's progress a National level Symposium was organized to identify new directions in HDFS research, policy and program linkages. Guidance was also provided at the participants' work sites through in-house workshops for their research team members and students.

An interdisciplinary orientation was opted for by conscious choice. Resource persons representing varied disciplines such as Psychology, Sociology, Social Work, Linguistics and Psychometry were invited to serve as consultants and interact closely with the participating researchers.

In all, five major research studies were completed by ten participating researchers guided by five faculty members of the HDFS Department at the M.S. University of Baroda and supported by a dozen or more invited experts. The research topics were : (1) Problems in learning to read and write in Indian languages. (2) Evaluation of the preschool component of the Integrated Child Development Scheme. (3) Development of self-esteem among women. (4) Time use by college students. (5) Women's work and child care.

The report is organized in three parts. Part I deals with the project's aims, organizational framework and summary of the proceedings of the workshops/conferences/ symposia, project evaluation and future directions. Part II presents a summary report of the five research studies (of ten participants). Part III details the Annexures and provides a listing of names and the proceedings of the inaugural session of the Final Conference held in July 1992.

PART I

PROJECT DESCRIPTION

PART I : PROJECT DESCRIPTION

A. Setting the Stage : Background and Overview

The project was born out of our concern for the continued dearth of good quality and accessible knowledge base in the area of Human Development and Family Studies (HDFS). Ignorance regarding what is available and lack of easy access has resulted in continued leaning on Western literature, often inappropriate for teaching, research and field application. A related concern is the prevalence of an almost neurotic reticence on the part of Child Development specialists, regarding writing, sharing and publishing research information.

The foundation for the Network project was laid at the Summer Institute in 1988. Eighteen participants prepared their research proposals under guidance and generated a lot of enthusiasm. A research manual based on the proceedings of the summer workshop is currently used by undergraduate and graduate students. Though enthusiasm can often be short lived, we had reason to believe that given the right kind of support, a sustained interest could be developed in mid-career professionals towards carrying out quality research.

Dr. Susanne Mowat,who was then with IDRC Delhi, received the idea of establishing a Research Network for consultative services very favourably and gave us a tremendous amount of encouragement to go ahead, and with the support of the University administration, the Network project was initiated in early 1990. We set out with the following objectives :

1. *Identify young researchers from different parts of the country, interested in and committed to research in HDFS.*
2. *Establish a network of consultative services for strengthening competence in various aspects of research, from developing a proposal through research designing, tool construction, statistical analyses and report writing.*
3. *Fund ten projects across the country and see them through to completion, monitoring the research progress through consultative services and workshops.*

   The criteria for selecting the participants were as follows: Participants had to be (a) permanent employees so that involvement would be of a sustained nature; (b) mid-career professionals so that they would have sufficient opportunities to build on their gains; (c) in the age group around 35 years, because we miscalculated that the personal-social committments of marriage and child bearing would have been taken care of by then.

The participants were finally drawn from Ludhiana, Chandigarh, Udaipur, Jorhat (Assam), Bombay, Parbhani, Coimbatore and Madras. (See Appendix A for List of participants). Three of them have been with us since the 1988 summer workshop. They were given the option to work on any one of the following five projects :

1. *Problems in learning to read and write in Indian languages for primary school children.*

2. *Evaluation of the Integrated Child Development Scheme (Preschool component).*
3. *Development of self-esteem among women.*
4. *Time-use among college students.*
5. *Women's work and child care.*

We had one to three researchers working in each area with a project leader at Baroda, ably assisted by several resource persons invited as consultants during the workshops or during site visits. Since January 1990, we have had four workshops and two major conferences/symposia.

1. *The first workshop in February 1990 focussed on idea generation and formulation of proposal outlines.*
2. *The second workshop in August 1990 was devoted to sorting out problems in sampling and data collection, and developing a plan of analysis.*
3. *In November we organized a national conference on New Directions in Human Development and Family Studies. It was a multi-disciplinary meeting that aimed at assessing the state-of-the-art in various areas of the discipline, identifying the possible linkages between research, policy and practice, and prioritizing possible research directions.*
4. *The third workshop in August 1991 enabled the participants to prepare a research article for publication guided by invited resource persons. The objective was to draw the participants' attention to the importance of information dissemination and the conventions of research publications.*
5. *The fourth workshop in December 1991 dealt with data analyses.*
6. *The final conference held in July 1992, provided a forum for participants to present their research findings.*

Besides these workshops and conferences, we had site visits by the Baroda faculty to provide on the spot guidance as well as several in-house workshops to tease out specific problems in specific projects. In all our endeavours, the invited resource persons played a significant role as friends, philosophers, and guides. We also invited 5-10 young researchers, other than the Network participants, for each workshop, so that they could also benefit from the proceedings as well as explore long-term possibilities for collaborative work.

In retrospect, it has been two and a half years of hard work, interspersed with periodical phases of excitement and depression.

B. *Pathways to the Project Progress : A brief description of the four Workshops and Conferences organized by the IDRC-HDFS Research Network (Jan., 1990 - Dec. 1992).*

The First Workshop (February 15-17, 1990): *Contact was established with Departments of Child Development in Colleges/Universities all over India. Ten researchers (See Appendix A.) were selected to be the core participants of the Network, who joined the network in two batches, i.e., at the time of the first and the second workshops. Idea* *generation and formulation of research proposal formed the focus of the first workshop. As noted earlier, five fields of study were identified :*

1. *Problems in learning to read and write among primary school children. : three researchers*
2. *Time use of adolescents : one researcher*
3. *Child care as a dual activity among mothers engaged in income generating activities : three researchers*
4. *Self-esteem of women(urban, tribal & rural) : two researchers*
5. *Evaluation of the Integrated Child Development Scheme : one researcher*

The Second Workshop (August 12-16, 1990): *The refinement of the research proposal was undertaken in this workshop. The specific objectives were as follows :*

1. *To sort out problems in data generation encountered by core participants who had started their research and thereupon to arrive at final research proposals, with clearly stated questions/objectives that each research will seek to answer/meet.*
2. *To guide new entrants to formulate preliminary research proposals, enunciating the objectives of the study, sample and methodology.*
3. *To enable participants to formulate a suitable plan of analysis for their research.*

During the course of the five days of the workshop, the following ideas were generated to serve as guidelines for the participating researchers :

1. *A conscious and concerted effort should be made to build on work that has already been done by other researchers in the field. By constantly trying to break new ground, instead of building on previous experience, the researcher tends to constrain herself to micro level studies that restrict generalization.*
2. *Each of the participating researchers should articulate the goals of her study precisely and link the same with her specific research questions, research design and plan of analysis.*
3. *The theoretical/conceptual frameworks of the different researches need to be developed more clearly. This would serve to provide clear direction to the researches, clarify ambiguities in the research questions and help integrate the data. Pure empiricism is often neither parsimonious nor integrative.*

In the light of the above, specific feedback was provided to each of the ten researchers to facilitate the refinement of their study objectives, design and plan of analysis.

The Symposium on New Directions in HDFS (November 8-10, 1990): *The Network organised a Symposium at which senior and midcareer scholars presented prepared papers (on themes alloted to them) examining new directions that research in HDFS is taking or could take. The Symposium was followed by a Round Table Discussion on November 11th. (see Appendix B for list of papers presented at the Symposium). The specific aims of the Symposium were :*

1. *Take stock of the present fund of knowledge in India in HDFS.*

2. *Chart out new directions that studies in HDFS need to take.*
3. *Examine policy and program implications of the findings of the past and ongoing studies, as well as the new studies.*
4. *Make a concerted effort to network researchers and scholars, doing research and field level work, to facilitate sharing of work, ideas, knowledge and expertise.*

Twenty two senior and mid career professionals representing Human Development and several allied disciplines (Psychology, Education, Pediatrics, Psychotherapy, Social Work) participated and contributed papers.
The main points that emerged through deliberations of three days are summarised below :

There is a need :
1. *for sensitivity to the Indian context and the sociocultural milieu in which the Indian child grows;*
2. *to identify, utilise and disseminate research literature on the development of the Indian child in context;*
3. *to develop and standardise ecologically sensitive tools and encourage their use by research scholars;*
4. *for greater interaction among researchers, program planners and policy makers especially in relation to Child Development;*
5. *to develop alternative paradigms to investigate 'soft' areas of study in the field;*
6. *for focussed attention on gender issues as well as for sustained longitudinal research on Infancy; Socialisation; Ageing; Developmental Psychopathology; and Growing up in crisis situations.*

The participants also stressed the need for dissemination of information, the importance of peer review of research, inter-disciplinary exchange, improved graduate training, and above all, the need for reflection and contemplation.
(An edited book based on papers selected from the Symposium proceedings has been published by Sage Publications titled Human Development & Family Studies : An Agenda for Research & Policy (1993).

The Round Table Discussion (November 11, 1990):*Senior scholars spent a morning thinking together on :*
1. *What facts do researchers in Human Development and Family Studies have to offer policy and program planners?*
2. *How can information be most effectively communicated to policy makers? How can the tasks of theory building and translation of theory into action proceed simultaneously?*
3. *What modifications are needed in the approach to research in Human Development and Family Studies, to make it more socially relevant and useful?*
4. *What is the role of the Human Development and Family Studies researchers in national development?*

The Round Table Group formulated a set of guidelines to increase the sensitivity to the Indian context in the teaching-learning situation of Post Graduate Programs in Child Development and allied fields (see Appendix C). These guidelines have been circulated to concerned departments in universities and colleges all over India.
The group also recommended the creation of a Task Force consisting of an interdisciplinary team of professionals, to promote the interface between research, policy and program implementation in Early Childhood Care and Education. The objectives of the proposed task force are contained in Appendix D.

The Third Workshop (July 29 - August 3, 1991): Scientific writing was the theme of the third workshop.

This workshop for mid-career researchers in HDFS was designed as an experiment to determine :

1. Whether such training will meet a perceived academic/professional need;
2. Whether an intensive tutorial-style workshop will be effective in strengthening writing styles; and
3. Whether such initiative will promote publication and dissemination of research information in HDFS.

The idea of the workshop had its genesis in the frustration emerging from reviewing research proposals and articles submitted to various funding agenices in the country (such as UGC, ICSSR, ICAR) and Indian journals in child development and allied disciplines. The common causes of rejection are inadequate, insignificant, or inappropriate substance; and inappropriate presentation or failure to communicate effectively. Sometimes good substance is marked by unclear presentation, resulting in painstaking revisions, or worse simple rejection. Suggested revisions usually communicated in writing, without an opportunity for dialogue, pose their own problems, especially in the absence of an academic support system in most HDFS institutions in the country. Thus the idea of a scientific writing workshop was born out of the desire to test whether person-to-person interaction and guidance will make a difference. Results of pilot work done in this regard with master's students in the past three years offered reason for optimism. The workshop in which an editor, of a reputed social science journal played a key role, turned out to be a worthwhile experiment. Thirteen participants attended the workshop and completed their papers for publication (for list of papers see Appendix E.). There have been subsequent requests for more of such workshops (a writer's manual based on the workshop sessions is currently used for a post graduate seminar course on scientific writing).

Plan of Analyses : August 1-3, 1991/ December 1991: During the first three days of August '91, eight of the IDRC core participants worked intensively on developing coding frames for their data analyses and also developing final plans of analysis. Some tabulation of data was done to test the usefulness of the plans. (Some of the participants had to return in December 1991 for additional briefing).

The Final Conference (July 11-14, 1992): The final conference marked a coming together of special invitees, observers, resource persons and the participant researchers from institutions all over India (see Appendix F, for welcome address). Dr. Mrunalini Devi Puar, Chancellor of the M.S.University of Baroda inaugurated the conference (Appendix G contains the inaugural address) and Mrs. Mina Swaminathan, eminent early childhood educator, was the key guest speaker (see Appendix H for text of speech)

The conference focussed on the presentation of results emerging out of the two years of research work by the Network participants and two additional doctoral scholars. (See Appendix I for list of papers presented)

The presentations were followed by a Round Table meeting on July 14th to identify future possibilities of interdisciplinary endeavours in HDFS.

The Round Table Meeting : Some Reflections (July 14, 1992): Following the valedictory function (see Appendix J for text of address by professor R.C.Tripathi) of the final workshop of the IDRC-HDFS Research Network, a Round Table Meeting was organized to generate ideas related to the future directions and expansion of the Network activities.

Twelve resource persons representing various disciplines allied to HDFS participated in the discussions (see Appendix E). Practically all of them stressed the need for continuing and expanding the research.

The key suggesions that emerged are summarized below :

1. *Expand the scope of the network to involve more individuals including senior professionals.*
2. *Evolve alternate models of networking, such as networking with institutions, networking for curriculum development, organising dissemination workshops, linking with other agencies (e.g. State Councils of Educational Research & Training) for translating research into action.*
3. *Initiate follow-up activity to add to the professional development of the network members/participants in terms of inviting them to serve as experts for reviewing proposals of doctoral students and/or research projects, encouraging them to conduct workshops independently in their areas, and to invite each other to present seminars in their respective institutions.*
4. *Identify networks that are already in operation and initiate activities to support them, involve them and generally 'keep in touch' with them.*
5. *Identify and select network members by inviting proposals from prospective members/ participants working in areas related to the research areas of interest to the core team.*
6. *Identify and contact prospective network members/participants, by means of a directory of individuals/institutions involved in research and action oriented activities.*
7. *Define entry point to the network carefully, in view of the bureaucratic/administrative problems experienced by most participants. In the hierarchical set-up that operates in our academic institutions, it would be advisable to involve the heads of various*

institutions more actively in network activities.

8. *Encourage future network members/participants to host meetings/workshops in their institutions in order to enhance involvement and responsibility.*
9. *Networking is a full time job, therefore future network programs must have one person to take care of the administrative and related details involved in such an excercise.*

C. Organizational Framework for Planning and Monitoring The Project Progress and Conducting Workshops.

Key Actors :

Consultants : M. S. University of Baroda Faculty (See Appendix K):*Five members of the teaching staff of the Department of HDFS constituted the team of in-house consultants to the Network. The functions of this team were :*

1. *To review research proposals/concept papers for selection for funding/guidance under the Network.*
2. *To monitor the progress of researches assigned to each consultant to guide individually, and to provide guidance whenever required.*
3. *To serve as resource persons during the workshops.*
4. *To give direction to the other activities of the Network, for instance, by providing guidance to non-participant researchers, invited to attend the Network workshops as observers, establishing contact with other senior and mid-career workers in HDFS in different parts of India, urging them to share their work and making available materials (tools, resource materials etc.) developed under their guidance, to any serious researcher who requires them.*

. ***Network Participants:****Ten core participants were funded by this network for specific researches. Appendix A contains a profile of these participants and the areas of their research. The funding provided by the network was intended only to cover the most necessary costs of research, and did not provide for any remuneration to the selected researchers.*

The core participants represented all regions of the country, and had, by and large, several years of teaching experience in HDFS. Most had guided researches of master's level students, and were qualified to conduct independent research with the kind of guidance provided by the Network.

Resource Persons:*Senior researchers with a rich background of experience in research and theory building in HDFS and allied disciplines were invited to the different workshops as resource persons. The invited faculty members, who were generous with their time, ideas and materials, are profiled in Appendix L.*

Besides participating actively in the workshop proceedings and sharing their ideas most generously, the resource persons also served as reviewers of several draft chapters and the final reports of the research projects. Such reviews enabled the participants to realize that the Baroda consultants had legitimate criticisms (and not merely unreasonably high expectations!) and enabled the Resource Persons to see how their suggestions were incorporated.

Observers:Besides the core participants in the Network, an attempt was made to invite and involve 5-10 other young professionals at each of the workshops. They participated in one or two of the workshops, sharing their experiences, preparing a research article under guidance, and acting as peer respondents to the Network participants. A summary profile of the invited observers is presented in Appendix M.

Settings

Site Visits:From the inception of the project it had been conceptualized that the core consultants, namely the Baroda faculty associated with the five major research projects, would spend a week or more at the participant's institution. The specified agenda was to provide on-the-site consultation and guidance to the participating researcher(s); having in-house workshops to train the concerned research team in preparing schedules, pilot testing, data collection or coding; and data analyses. The added hidden agenda was to get acquainted with the concerned institutions' administrative authorities and also build a rapport with the participants' departmental colleagues and post graduate students. One or two site visits were made by each consultant for periods ranging from three days to a week. In a majority of the cases the objectives of the site visits were well served. The site visits served to boost the morale of the research team who often worked under stressful conditions (such as terrorism in Punjab, political upheaval in Tamil Nadu, and the uncertain condition is Assam). It also afforded the participant researcher opportunities to dialogue and resolve the nitty-gritty details related to the research procedure, difficult to communicate in writing using the not-so-dependable postal system. Above all, the consultant's presence and interaction served to demystify what went into the project work and evoke interest in the younger colleagues and senior students regarding the possiblity of future participation in the Network's activities.

Accomodation:During all the workshops and conferences held under the auspices of the Network it was deliberately planned that Network participants, invited observers, and resource persons should stay together at the university guest house, situated on the campus. The guest house provides clean and airy accomodation surrounded by abundant greenery and overlooking the famous Kamati garden (ideal for morning and evening walks). During the workshop/conference days all were expected to stay only at the guest house. Very soon the participants learnt to appreciate how this living arrangements enabled them to get acquainted with the "experts" under a less formal and "threatening" setting. This led to informal discussions at the dining tables, invitations to tea and a chat, and late night sessions in problem solving. Quite often the resource persons wore the hat of friendly counsellors helping to generate alternative solutions not only for the immediate problems related to their study, but also to pressing life situations that interfered with their professional progress and plans.

D. The March of the Rupee : Accounting Procedure

The following guidelines were provided to all the Network participants regarding release of instalments and submission of expenditure statements.

1. All project related expenses should be supported by appropriate cash memos/bills/ vouchers.
2. The second installment of the grant would be released about a month after the receipt by the Project Director, of an unaudited statements of accounts for the first installment (this could be submitted for an amount somewhat less than the installment amount).
3. The third installment would be released a month or so after the receipt, by the Project Director, of a statement of accounts of expenses pertaining to the amount of first installment, verified by the Chief Accountant and Auditor of the concerned university (verification certificate) plus an unaudited statement of accounts for the second installment. The same procedure would be followed for the fourth installment on submission of verification certificate for the second installment, and unaudited accounts for the third installment.
4. The final installment would be released only after submission of an audited statement of accounts and utilisation certificate signed by the Chief Auditor and the highest financial authority of the concerned university.

E. Evaluation by Participants and Resource Persons

In order to assess the projects' contributions and achievements as seen by the Network participants and consultants (Baroda faculty), a broad framework was provided to enable the respondents to give open-ended answers/ suggestions. The broad framework is summarized below :

In terms of the existing network, feedback was sought on the following aspects :

1. The usefulness of the Research Network.
2. The choice of the research topics (time use, child-care, self-esteem, reading and writing problems, ICDS impact evaluation).
3. The efficacy of the workshops.
4. The selection of the participants and their progress.
5. Choice of resource persons.

In terms of future projections, the feedback was elicited on :

1. Possible future activities the Network can undertake.
2. Possibility of including other disciplines in the Network's activities, and widening the scope of the Network activities.
3. Names of specific organizations and persons who might be interested in joining the Network (and in what capacity i.e. as co-organizers, participants, invited resource persons).
4. Possibility of holding a Network program (e.g. a workshop on Research Methodology) at their institutes.
5. Specific examples of research topics in HDFS which they considered to be of interdisciplinary interest.

The respondents were requested to consider the above points only by way of guidelines or a broad framework, and not be constrained by them. They could choose to discard the *points completely, and form their own framework to respond to. It was reiterated that "what we are interested in, is your assessment of the present and your suggestions for the future directions of the HDFS Research Network".*

The individual gains as perceived by the participants were :

1. *Developed clarity regarding :*
   - *the detailed research planning process/organisation and systematization, accuracy, precision (all participants).*
   - *significance of selecting socially relevant topics for research.*
   - *problem statement.*
   - *planning a coordinated series of related studies.*
   - *alternative research methodologies.*
2. *Had opportunity to interact with professional peers from other states.*
3. *Had access to resource materials.*
4. *Developed writing skills.*
5. *Gained confidence as a researcher.*

The role and contributions of the Baroda faculty was perceived consistently as positive. Some of the responses are cited verbatim here.

6. *"Thorough and dedicated approach to research has been an inspiring force".*
7. *".... insightful and patient guidance ......faculty member's role as facilitators providing initiative whenever and wherever needed".*
8. *"Teamwork, meticulous planning, promptness".*
9. *"Professional guidance and models, generous with time, ideas, investment, feedback".*

The evaluation by the Baroda faculty expressed the satisfactions associated with participation in this novel venture as well as the frustrations and strains experienced at varied stages of the project's progress.

The reasons for satisfactions were :

1. *It was a stimulating experience.*
2. *Interactions with resource persons and participants at the different workshops provided opportunities for sharing.*
3. *It provided scope for strengthening one's own research base and competence leading to professional development.*
4. *It enabled one to get acquainted with colleagues in allied professions and to establish linkages with other department/institutions.*

The reason for dis-satisfactions were :

5. *Fluctuating interest of participants.*
6. *Pressure of accountability for (errant) participants' work progress.*
7. *Limited interaction with participants in other projects (i.e. other than one's own research area).*
8. *Lack of sustained interest on the part of institutions that sponsored candidates for*

participation in the Network's activities (i.e. inadequate institutional support).

Despite the frustations and strains, the Baroda faculty uniformly expressed interest in continued involvement in the Network project's future and stressed on the need for continuing the venture. It was however, emphasized that there is need to seriously reconsider the modalities of project operation as it existed in the first phase.

F. Looking Back (Project Director's Soliloquy!)

Two and a half years have gone by; 2 1/2 years of toil, tears and tearing one's hair; also of excitement , exuberance and exhileration.

What have we achieved ? Were the goals too high and hopes too lofty ? Were the plans only rainbows in the sky ? What does the post hoc analysis reveal ?

Participants	*Ofcourse they grew - all of them; even the most 'incorrigible' ones. Naturally some grew very tall and reached for the skies paving the way for clear career trajectories in the form of grants to continue the initiated research; fellowships for higher studies or for sharing the research at national and internationsal conferences. Some achieved status in the eyes of their peers and senior colleagues. Some have only taken toddling steps and perhaps in the coming years will cross some career mile-stones. Only one person gave up - may be she will return to the fold someday ... may be not.*
Consultants (MSUB)	*Companions in distress or comrades in research networking ? The team came together and stood tall whenever the occasion demanded. At other times we vehemently disagreed, shouted at each other, soothed frayed nerves, came up with bright ideas, acted like wet blankets and dampened 'hot' spirits ..... In sum, we believed in the CAUSE and stood by our resolve to swim through troubled waters. Brave, may be. Foolhardy, perhaps !*
Resource Persons (invited experts)	*Great souls. Critical in their academic feedback; diplomatic in their criticism; sensitive in their support; intuitive in their insights; marvellous in their sense of humor. Ever ready, ever willing (even when elusive and distantly silent !). What more can one ask for ?*
The system	*Which system ? Departments of HDFS in colleges of Home Science which we set out to network, integrate, bring together, strengthen and support ! Well, very*

resistant on the whole. Three institutions were very supportive and very receptive; three indifferent and three hostile (one of course dropped out). So in one way we did not quite achieve a major objective we set out with. However, on the flip side of the coin there was an unexpected spin off and that is ....

The Emergence of an Interdisciplinary Network

They came as resource persons, somewhat at the fringe of the network - interested, curious, willing to lend a helping hand, but still at the fringe - watching, waiting to see what happens. And they were drawn into the Network, first hesitantly with "may be's" "perhaps" etc., and then with greater certainity indicating interest in becoming network members, making offers to assume responsibility, rebuking us for considering "winding-up" the Network activities and showing the way, by giving suggestions on help to continue without burning out. (Detailed in the next section, Contemplations for Future Directions.) The alternative models for the future, as elaborated by resource persons associated with the project are presented in the next section.

G. What next ? : Contemplations for Future Directions

The resource persons at the IDRC-HDFS workshops, most of whom had also served as Consultants during the research projects' progress, provided individual feedback regarding their evaluation of the Network activities and offered suggestions for future directions. Without exception, the resource persons were gracious and generous in their appreciation of the concept of networking, the sustained and dedicated efforts of the Baroda team and the young participants, and the unsparing investment of time and energy to see the project to successful completion. There were also realistic appraisals of the severe demands made on the Baroda faculty and the strains caused by the personal and professional constraints amidst which the participants had to execute their project.

A common refrain in all the recommendations has been that the Baroda faculty have been stretched to their limits (bearing the brunt of their own administrative constraints as well as those of the participating institutions). Hence all plans for future continuation and expansion must ensure an expansion and upgrading of the administrative staff positions in the Head Office (Baroda). Only when the infrastructure facilities are augmented, the Baroda faculty can expend maximum energy on the major task on hand, i.e., developing research competence and networking without dissipating scarce resources in tackling administrative routine and bottlenecks.

Suggestions for alternative models for continuation of the Network activities were offered keeping in mind the aforementioned strengths and constraints.

Model 1

Offer a series of self contained workshops on selected themes, giving the participants the option to attend one, some or all the workshops. The idea is to strengthen research competence without calling for sustained and long term involvement/committment from those whose personal and professional circumstances are not favourable (yet there is interest and willingness to grow professionally).

	Event	***Participant's Product***
1.	*Research planning workshop. How to manage research proposal writing and obtain funding.*	*Project plan proposal*
2.	*Training of research workers*	*Description of how to recruit and train workers. Details to be taken care of in training : Field manuals, training sessions, reliability checks.*
3.	*Computer use. Aquaintance with computer operations, planning for computer use in research*	*A listing of information related to computer available with parent University and other national agencies (ICSSR, CSID etc.).* *- Software packages available: word processing, statistical.* *- Types of computer functions/supports available in each package.* *-Charge & time for computer use.*
4.	*Applied statistics and research*	*A record of the appropriateness of statistical analysis used in 5-10 research studies (guided by the researcher). Use & misuse of statistics. Reading and interpretation of 5-10 computer outputs.*
5.	*Writing for publication in Social Science Journals.*	*A paper based on participants' research ready for submission to a standard journal.*

Model 2

Evolve a system of fairly self-sufficient satellite networks at the regional levels. Each regional unit to be co-ordinated by a senior researcher from the concerned University interested in and committed to the network's goals. The regional networks can consist of interdisciplinary teams in HDFS and allied disciplines such as Psychology, Education, *Special Education etc. The regional co-ordinator can co-opt midcareer professionals in disciplines relevant to the research project undertaken, and provide for consultancy services. These support networks would (a) help reduce the strain on the Baroda faculty; (b) promote scope for regional leadership and activities; (c) lessen the time constraints involved in travelling to Baroda.*

The Baroda HDFS Network faculty would play the role of co-ordinators, facilitators, initiators in a more decentralized exercise.

Model 3

Focus the second phase of the Network activities on Secondary Analyses of extensive data already collected in the first phase. A substantial portion of the data is yet to be utilized. Such an extension may provide an incentive to some of the participants in Phase I to continue their work and also involve some of their departmental colleagues. New recruits can be provided with basic information regarding the available data frame to enable them to make their choice of the research topics.

Such an endeavour may also serve as the basis for starting Data Archives in HDFS (India).

Model 4

Have an extensive-intensive survey done of research interests and perceived priorities of HDFS departments across the country. This can be done through questionnaires and personal interviews. Short list relevant areas of study and cluster similar themes into broad research areas. These areas can be selected for further investigation. Such an endeavour may be more need based and familiar to the prospective participants. This may also reduce the dependency relationship fostered in the present Network, wherein the areas were decided by the Baroda faculty.

Once the areas are identified, a regional network idea (see Model 2) may be adopted with continuous support from the regional network and periodic support from the Baroda centre.

Besides the four models outlined above, several other specific suggestions were given for consolidating the gains acrued so far of the project. These included :

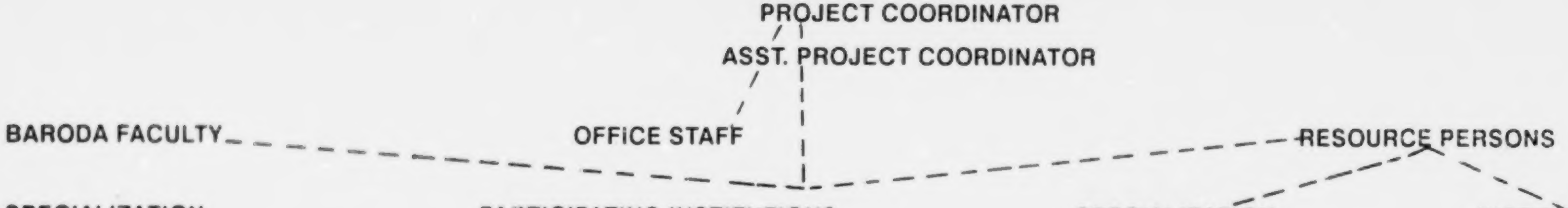
1. *Bringing out a series of publications based on the researches.*
2. *Encouraging wider dissemination of the research findings.*
3. *Conducting an annual conference in HDFS to provide opportunities for sharing and networking.*
4. *Preparing a directory of ongoing research activities in HDFS for wider circulation and networking.*
5. *Setting up Data Archives.*
6. *Setting up a Documentation Centre and Clearing House in HDFS.*

A Concluding Note

At the time of the preparation of this technical report, the M. S. University of Baroda has granted sabbatical leave to the Project Co-ordinator in order to enable time for writing to disseminate the Network information and to plan for the future. Several resource persons have extended invitations to spend some think time at their institution offering office and library facilities. They have also indicated clear interest in becoming active members of the Network activities willing to take responsibilities in guiding young researchers on selected projects. The Co-ordinator has plans for spending part of the Sabbatical leave at the Murray Research Center, Radcliffe, Boston to develop plans for initiating a Data Bank and also for using the Network data for Cross Cultural work. One of the core Consultants on the Baroda team has been awarded a Fulbright fellowship to spend research time at Eugene, Orogen, USA and this will help strengthen and consolidate her work in the area of problems in reading and writing. One of the participants has been selected for the award of the Johann Jacob Research Grants for continuing her work on time management among university students at Chandigarh. A second participant continues her work in the area of child care as part of her doctoral program at Pennsylvania State University, USA and another plans to continue her work in the area of reading and writing problems in Marathi of primary school children in Bombay, as her doctoral research.

IDRC-HDFS RESEARCH NETWORK (INDIA)

ORGANIZATIONAL FRAMEWORK



SPECIALIZATION	PARTICIPATING INSTITUTIONS	
* Child Development	* College of Home Science Panjab University, Chandigarh	* Dept. of HDFS Assam University Jorhat.
* Learning Disability	* College of Home Science Punjab Agriculture University, Ludhiana.	* College of Home Science, Marathwada Agricultural University, Parbani.
* Early Childhood Care and Education	* Dept. of HDFS, College of Home Science, Jammu.	* College of Home Science Rajasthan Agricultural University, Udaipur.
* Women's Studies	* Avinashilingham Home Science College, Coimbatore.	* Department of Child Development, SVT College of Home Science, Bombay.
* Psychology	* Dept. of Child Development, JBAS College, Madras.	

SPECIALIZATION	INSTITUTIONS
* Psychology Developmental Social	* Dept. of Psychology, University of Allahabad.
* Psychometrics	* Dept. of Speech Pathology, All India Institute of Speech and Hearing, Mysore.
* Linguistics	* Dept. of Psychology., Banaras Hindu University, Varanasi.
* Sociology	* Dept. of Psychology, Utkal University, Bhubaneswar.
* Early Chilhood Education	* Dept. of HDFS, M.S. University of Baroda, Baroda.
* Women's Studies	* Project ACCESS M.S. Swaminathan Research Foundation, Madras.
* Cross-cultural Psychology	* Child Study Unit National Council of Educational Research & Training, New Delhi.
* Community Psychology	* Gandhigram Rural Institute, Deemed University, Gandhigram, Tamil Nadu.
* Cognitive Psychology	
* Speech and Learning Disabilities	

PART II

RESEARCH REPORTS

PART II

Project Co-ordinator's Note

A brief summary of the research studies conducted by the 10 Network participants is presented in this section of the report. The studies have been integrated under the five major topics of Learning problems, Self esteem, Time use, ICDS impact evaluation and Women's Work and Child Care.

The results presented are based on the preliminary analysis of data. A detailed, indepth analysis has not been possible at this stage for several reasons. Each project guide however, has plans on the anvil to utilize the data to the maximum extent possible in the coming 2-3 years. Data have been catalogued and stored with this goal in mind.

The constraints in carrying out more detailed analysis relate to:

1. The continued socio-politically turbulent situation that prevailed practically in every part of the country wherein data was collected. (Assam, Punjab, Jammu, Tamilnadu, Chandigarh). This led to repeated disruptions in data collection schedule delaying the entire excercise by 6-12 months.

2. Lack of adequate computer facilities and red-tape in the use of facilities available elsewhere.

3. Heavy work-load carried by all the project participants, none of whom were given any time off for research. This meant that they had to carry on with a full load of teaching, other departmental responsibilities, and guiding research scholars on other topics. The Network project was treated as over and above all the other regular work.

4. Personal and family contingencies including marriage, pregnancy, child birth, illness etc. that had a direct impact on research time.

Despite all the above problems (and some more unlisted ones) the participants and project guides did their best to obtain atleast a bird's eye view of their respective project work based on the preliminary analysis. In the case of atleast three projects further analysis have been initiated.

"ACQUISITION OF READING AND WRITING IN MARATHI AND ASSAMESE LANGUAGE - ERROR PATTERN ANALYSIS"

Participants : Suja Koshy
Minoti Phukan
Juri Barooah

Project Guide : Baljit Kaur

INTRODUCTION

RATIONALE

The ability to read and write effectively is becoming increasingly important in today's complex society. Even in a country like India, where a large proportion of the population is illiterate, unless children can read and develop written expression from their early years, they are likely to be at a disadvantage not only in school, but also in their day-to-day living. Though 95% children get enrolled in the first grade, nearly 60% of them drop out between Grades I - IV. In view of the importance of formal school learning, it is alarming to observe the high dropout and stagnation rate among children especially in the primary grades of Indian schools (National Policy of Education, 1986). Besides socio-economic reasons, the failure to attain proficiency in reading and writing may often be a major reason for a child dropping out of school.

Studies indicate that a large number of children, even after two years of schooling, neither know how to read simple letters or two-letter words nor to write simple sentences using a common word (Mistry & Mohite, 1984). Bernsten (1990) found that more than 50% of the third standard students in her sample had not mastered the basic skill of reading Marathi (one of the Indian languages) - a skill that should have been mastered by the end of first standard. These statistics present a dismal picture of the proficiency of children in the skills of reading and writing, and underline an urgent need to improve the teaching-learning strategies.

Further, it can be reasonably argued that some children who fail and eventually drop out of the school system may be learning disabled. It is also widely accepted that the largest proportion of children with learning disabilities have disabilities related to the reading skill. The nature of reading difficulties varies to a large extent with the nature of the language and the process by which children are taught these skills. Thus it is felt that information on typical and atypical acquisition of reading and writing would enable us to provide effective intervention to a sizeable number of children who have trouble acquiring these skills. One approach for acquiring this infomation is the analysis of error patterns committed by children while learning to read and write.

The notion of error presupposes the existence of a norm, a standard against which the learner's performance is to be judged. Generally, errors are dismissed as a matter of no particular importance or as possibly annoying, distracting, but inevitable by-products of the process of learning a language. But errors are actually important evidence that the child is in the process of acquiring the target language. Errors can serve as diagnostic tools to evaluate language achievement of the individual child. They help to pinpoint the areas of deficiency and difficulty (Parasher, 1983).

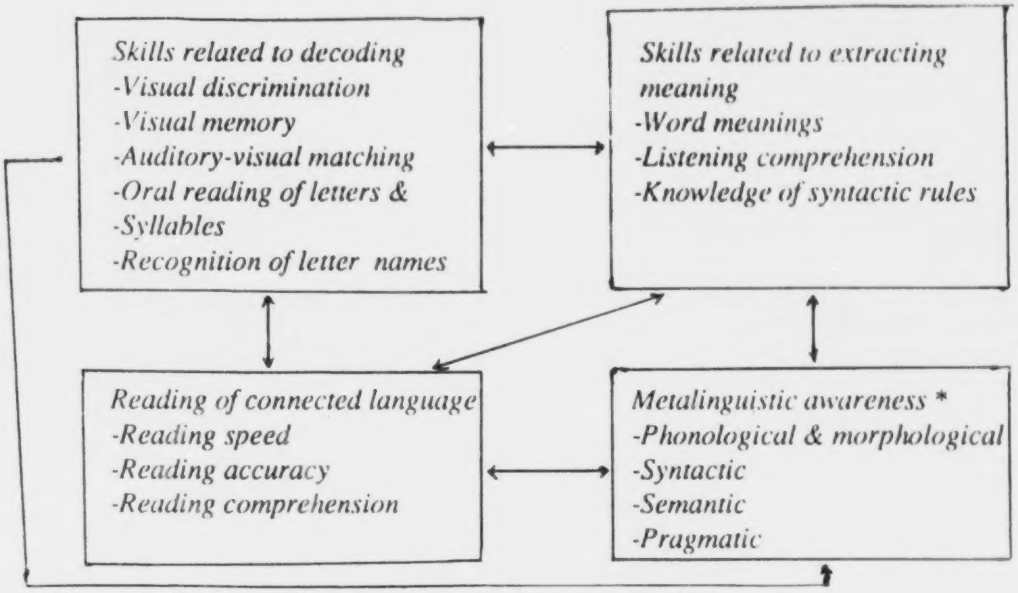
The nature of reading difficulties differs with the nature of the language. But unlike in the West, the field of acquisition of reading and writing in Indian languages is still largely unexplored. The features and characteristics of the scripts of Indian languages differ from those of English. In India, a large number of languages are spoken. Of the 1652 mother-tongues listed in the 1981 census, India has 18 officially recognized languages. The Indian languages have evolved from four different language families. They differ from each other yet have commonalities. Many linguistic and syntactic features of Indian languages are not similar to English. Systematic research is urgently needed in the methods which would facilitate the mastery of languages and emphasize the peculiarities and broad similarities of the Indian languages with respect to the scripts and acquisition process.

NATURE OF READING

In Western literature, there has been a major controversy about the meaning and nature of reading. Some researchers have espoused the view that reading is synonymous with decoding (Liberman, Shankweiler & Liberman, 1989). Others have posited that reading means gaining meaning from print, comprehension, or "reasoning". For instance, Smith, Goodman, and Meredith (1976) hold reading to be "the active process of constructing meaning from language represented by graphic symbols (letters) systematically arranged" (p.265).

Interactive models of reading have also been suggested (e.g., Perfetti & Lesgold, 1979). Chall (1967) suggested that in the early stages of reading, it is mainly a decoding process, and with increased proficiency of the reader, it becomes more of a thinking process. Similarly, Spache and Spache (1986) maintain that reading changes from what is primarily considered word recognition, to development of sight and meaning vocabulary, to different types and degrees of comprehension, to natural processes of recalling, interpreting, judging and evaluating.

In the present study, reading is being viewed as a skill which involves both decoding and comprehension, that is, the ability to gain meaning from the units of print. Schematic representation of the nature of reading adapted in the present study is given below.


Skills related to decoding
-Visual discrimination
-Visual memory
-Auditory-visual matching
-Oral reading of letters &
-Syllables
-Recognition of letter names
Skills related to extracting meaning
-Word meanings
-Listening comprehension
-Knowledge of syntactic rules
Reading of connected language
-Reading speed
-Reading accuracy
-Reading comprehension
Metalinguistic awareness *
-Phonological & morphological
-Syntactic
-Semantic
-Pragmatic

* *These skills have not been assessed in the present study.*

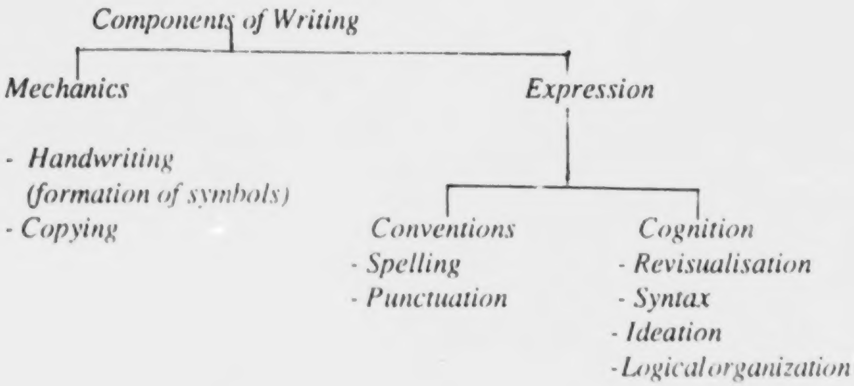
NATURE OF WRITING

Klien (1985) defined writing as "the ability to employ pen or pencil and paper to express ideas symbolically so that the representations on the paper reflect meaning and content capable of being communicated to another by the producer using the marks as mnemonic cues" (p.4).

Proof of children's learning of advanced academic subjects often rests upon the ability to communicate in writing. With advancing years, more and more material must be learned in written form and success in all academic subjects depends on the proficiency to read and write. Writing is an integral part of the school curriculum.

The debate pertaining to writing concerns "mechanics" versus "expression", although unlike reading, this debate has not occupied the centre stage in writing research. Earlier, writing was considered as "handwriting". Mitrel (1982) commented that even today some researchers and teachers define writing as only "handwriting", rather than as a process inevitably involving cognition.

Writing, like reading, is a highly complex form of human communication requiring the co-ordination of several skills. To write effectively, a person must generate ideas, select words that adequately express the thoughts, and use acceptable grammar. Hammill and Larsen (1983) suggested that in order to write meaningfully one needs at least five basic abilities, that is, "(a) to form letters, numerals and sentences in a legible manner, (b) to generate enough meaningful sentences to express one's thoughts, feelings and opinions adequately, (c) to write in compliance with the accepted standards of style, especially those governing punctuation, capitalization and spelling, (d) to use acceptable syntactic, *morphological and semantic elements, and (e) to express ideas, opinions and thoughts in a creative and mature way" (p. 350). The skills related to mechanics as well as expression are important to use writing effectively. Schematic representation of the nature of writing adopted in the present study is given below.*



The relevance of various skills, taken together or singly, for efficient reading and writing has been researched extensively vis-a-vis the English language.

Gibson and Levin (1975) reported that the distinctive features of letters such as directionality and the nature of lines forming it (i.e., curves versus straight lines) act as aids to recognition of letters. According to Taylor and Taylor (1983), a 'feature' is some characteristic of an object that puts it in a class with one set of things and differentiates it from another set. The shapes and lines are significant aids to letter and word recognition because they are constant and invariant. These authors have reported further that Tversky (1977) presented a recognition model based on feature sharing and discrimination. He posited that: (a) it is more important for a letter to own a feature than to lack one, and (b) common features make letters confusable more than different features make them discriminable (p.168). Keren and Baggen (1981, cited in Taylor & Taylor, 1983) tested Tversky's model against two confusion matrices. They found that items with many features in common tended to be confused, regardless of the features that distinguished them.

Whether any of these claims holds true for Indian languages is a question in search of empirical investigation. A few recent studies in Kannada language related to the reading performance of children have documented that children's mistakes were systematically dependent on physical features of Kannada characters (Purushothama,1988,1990). The present project grew out of a need to gather information regarding reading and writing acquisition in Indian languages, which can be used to help identify and work with children with learning difficulties/disabilities.

Work in five Indian languages, that is, Hindi, Gujarati, Panjabi, Marathi and Assamese has been undertaken so far. Out of these, the studies on Marathi and Assamese languages have been funded under the IDRC-HDFS Research Network. The information on the following pages pertains to these two studies. Both Assamese and Marathi are Indo-Aryan languages and are included in the list of 18 official languages of India. Assamese is spoken mainly in the Brahmaputra valley in eastern India, and is the official language and medium of school instruction in the state of Assam. Marathi holds the corresponding status in the western state of Maharashtra.

GENERAL OBJECTIVE

To discern the distinctive features of Marathi and Assamese scripts which are facilitative or interfering in the process of learning to read and write in these languages.

SPECIFIC OBJECTIVES

1. To identify, document and analyze the nature of error patterns of children in various grades (I - IV) in the reading and writing of Marathi and Assamese.

2. To find out whether the number of errors made by children at various grades differs significantly.

3. To investigate differences, if any, between the errors (in Assamese) committed by children of two schools which differed with regard to the quality of instruction.

METHODOLOGY

***Selection of Sample :** (Study I - Marathi)*

The sample was drawn from I to IV grades of a Marathi medium school in Bombay. Stratified random sampling was used to select a group of 72 Marathi speaking subjects, 18 children from each grade, representing three levels of proficiency in Marathi language, derived on the basis of teacher rating.

***Selection of Sample :** (Study II - Assamese)*

Sample of the present study consisted of 240 primary school children from 1st to IVth grades. Two schools, S1 and S2 were considered as schools with poor and good quality *of teaching respectively, on the basis of number and qualification of the teaching staff, as well as the results of the final Board examinations. The medium of instruction was Assamese. Children came from Assamese speaking families. The sample consisted of 120 children from each of the schools, who were futher divided equally according to grade, sex and language achievement level. The latter was decided on the basis of teacher rating. The tasks administered in the studies are listed in Table 1.*

ANALYSIS

Analysis of variance (or t-test) was used to find out the grade effects (and school effects in Study II), using total number of errors in various tasks and time taken to complete a task (where appropriate) as predicted variables.

Table 1

Details About The Tasks Administered in The Project

SNO.	Tasks	LEVEL OF TESTING					MEASURES YIELDED	ADMINISTRATION	
		Letter	Barakhadi	Word	Sentence	Paragraph		Individually	Group
	COMPONENT SKILLS								
1	VISUAL MAT	✓	✓	✓	—	—		—	✓
2	VISUAL MEMORY	✓	✓	✓	—	—	a) Total error score	—	✓
3	AUDITORY-VISUAL MATCHING	✓	✓	✓	—	—		—	✓
4	SENTENCE-COMPLETION FOR SYNTAX	—	—	—	✓	—	b) Scores for different categories of errors	—	✓
5	LISTENING COMPREHENSION	—	—	—	✓	✓		✓	—
6	LETTER NAME RECOGNITION **	✓	—	—	—	—		—	✓
	WRITING SKILLS								
7	COPYING	✓	✓	✓	—	✓	a) Total Error Score	—	✓
8	DICTATION	✓	✓	✓	—	✓		—	✓
9	SPONTANEOUS WRITING	—	—	—	—	✓	b) Categories for qualitative analysis	—	✓
	READING SKILLS						a) Time b) Total		
10	ORAL READING	✓	✓	✓	✓	✓	c) Scores for different error categories d) Comprehension scores [pictures]	✓	—
11	SILENT READING	—	—	✓	✓	✓	a) Comprehension scores	—	✓

* In Assamese the tasks were given for simple letter as well as cluster letters.

** In Assamese only

In addition, Draw-a-man (Phatak, 1986) was administered to all children and background information was collectd.

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In addition, the average number of children committing a particular kind of error at each grade, and the proportion of actual and possible errors of a kind in a task per grade were also calculated, as Mean Error percentage (ME%) and Mean Incidence percentage (MI%) respectively. These indices were arrived at using the following formulas :-

$$\text{Mean Error percent (ME\%)} = \frac{\text{Number of children committing a kind of error in a grade}}{\text{Number of children in that grade}} \times 100$$

$$\text{Mean Incidence percent of error (MI\%)} = \frac{\text{Frequency of a particular kind of error committed per grade}}{\text{Possibility of committing errors of that kind} \times \text{No. of children in that grade}} \times 100$$

RESULTS AND DISCUSSION

A brief presentation of major findings of the study on Marathi language will be followed by a summary of these findings. In the end, some highlights of the findings of study on Assamese language will be presented.

STUDY I - MARATHI

General Characteristics of the Sample

Children participating in the study were between the ages of 6 and 10 years and came from Marathi speaking homes. The Draw-a-Man scores of the sample indicated an IQ range of 95 to 157. The education level of the parents varied from IV standard to post graduation, with a majority of fathers and mothers having completed S.S.C. or undergraduate degree courses.

Component Skills of Reading and Writing

*1. **Letter level :** At the letter level of testing, very few errors were made by children. In the tasks of visual matching, visual memory, auditory-visual association, copying, and dictation of letters, there were no significant differences between the grade means. Less than 10% children made errors in visual matching and visual memory of letters, whereas less than 25% children made errors in the recognition of letters in the auditory-visual association task.*

In the task of visual matching of letters, 22.2% of the children in the first grade confused visually similar letters. But the mean possibility of errors due to "visual and auditory similarity" with the target letter was higher. This means that the younger children tended to be more confused when the choices did not permit the use of either visually or auditory discriminating cues.

Table 2
Mean and Standard Deviation for the Time Taken And Total Errors for the Oral Reading of Letters

Grade	Time taken(Secs)		Total Errors	
	M	σ	M	σ
I	37.72	9.50	2.33	1.81
II	34.89	7.70	1.94	1.43
III	35.28	7.55	1.78	0.94
IV	36.28	7.31	1.67	0.69

Table 2 reveals that the grade means of the time taken to read the 36 letters varied little across grades. Only a few letters created confusions. In the first three grades ञ *was a problem. About 50-75% of the children omitted this letter. At the 4th grade, about 25% children had problem with this letter. A few children in every grade substituted it with* न *or* त्र *. About 50% children substituted* ऋ *for* ॠ *. Less than 10% confused visually similar letters like* ठ/ट , क्ष/श, ब/घ and ञ | ज्ञ | ज.

Common problems in copying were the incorrect formation of letters, omission of headline, decreased letter size and illegible handwriting. These problems were more prominent in the early grades. About 25% of the children at all grades wrote म as म. *Less than 10% of the children wrote* प *as* य, ष *as* ब *or* प *, and* घ *as* ध.

The results of the dictation tasks revealed that confusions between the similar sounding श | क्ष | ष *persisted for children even upto Grade IV. Some of the errors were for visually similar letters, for example,* फ | क , प | श.

2. ***Barakhadi level :** At the Barakhadi level, the results revealed lack of significant grade differences in the visual matching and auditory visual association tasks. In the visual memory task, the mean error of 2nd grade children differed significantly from the mean error score of the 4th grade children, with the latter making fewer errors.*

On the whole, very few errors were committed in the visual matching and visual memory tasks. Less than 10% of the children made any errors in visual matching of Barakhadi. At all the grades, the syllables containing the matra of ि|ी *were confused by children. The syllables with* ु|ू *Barakhadi were confused in the first two grades. Except for a few first graders, none of the children made errors such as* [illegible], [illegible], [illegible].

As expected, children made more errors in the visual memory of Barakhadi as compared to the visual matching task. About 25% of the children of all grades were confused with the "anuswar" (ं*) and "visarg" (:). Errors of left and right orientation were more common than errors due to lack of attention to detail. Children found auditory-visual association of Barakhadi to be more difficult than the above described tasks. More than 50% of the children at all grade levels made errors of* ु|ू*. Similarly, 75% of the children confused* ि *with* ी *in this task.*

For the oral reading of Barakhadi, the average time taken by the 1st to 4th grade children was 13 seconds, 12 seconds, 11 seconds, and 11 seconds respectively. In this task, 25% of the 1st graders and less than 10% of children at the other grades confused ु *and* ू *. About 50-75% students at all grades either ignored the "visarg" (:) or read it as the "anuswar" (*ं*). While copying, confusion of left-right orientation between* ु|ू *and* ि|ी *was seen in about 10% of the first and second graders. In the dictation task, about 75% of children at all grades confused between these same Barakhadi units.*

3. *Word level : Highly significant grade differences were found at the word level for the tasks of visual matching, visual memory, audio-visual association as well as dictation. In the visual matching task, Grade I and Grade II differed significantly from Grade III and Grade IV in the total errors at the word level. For the visual matching and visual memory tasks, errors of position of matra were committed by more than 50% of children. For example, they confused between* वीसावा *and* विसावा, शिरा *and* शीरा *. Sequencing errors were the next major group of errors, with about 25-50% of children making such errors as* खवरूज *for* खवजूर, आसरा *for* आरसा. *In the auditory-visual association task, more than 75% of the children confused between words with auditory similarity, for example,* चुरबुर / चुरचर *and* पिटकुला / पिटुकला. *Words containing letters which sound similar also confused the children and led them to make erroneous responses. In Marathi language,* ल *and* ळ *sound very similar, thus a majority of children made errors in the words like* माला *and* माळा, उकलणे *and* उकळणे. *In the auditory visual association, 51-75% of the children ignored Initial Sound (IS) and 25-50% of the children ignored Final Sound (FS), and evidenced the confusion between words like* अंतर *and* नंतर, दक्षिण *and* दक्षिणा.

Errors of Internal Detail (ID), Medial Sound (MS) and Word Length (WL) were very few in all the tasks at word level. When the children had the target word in front of them to match, the errors of External Detail (ED) were very few. But when the child had to revisualise the word in the visual memory task, such errors were more common. While reading the words aloud, Ist graders took 106 seconds, whereas IInd and IIIrd graders took

71 seconds each, and the 4th graders read these in 54 seconds. About 30% of the 1st graders indulged in letter-by-letter reading. By 3rd Grade letter-by-letter reading rarely occurred, and the children treated the words as whole meaningful units instead of separate letters. The few errors made in the oral reading of words were additions and substitutions.

While copying words, younger children performed similar to older children, but in the task of dictation, where the task demand is higher, the younger children made more erorrs than the older ones, with significant differences between Grade I and Grade III and IV, and between Grade II and Grade IV.

4. Sentence level : ANOVA results on the oral reading comprehension errors indicated that 1st graders made significantly more errors than the other children [F(3,68) = 6.2370, p=.00008]. In listening and silent reading comprehension the differences were significant between grade I and grade III and IV only.

Table 3

Mean Error Score in the Comprehension of Sentences (Listening Comprehension, Oral Reading, Silent Reading)

Grade	*L.C.*	*O.R*	*S.R*
I	*2.22*	*2.67*	*2.79*
II	*1.50*	*1.67*	*1.61*
III	*0.94*	*1.33*	*1.28*
IV	*0.77*	*1.57*	*1.00*

Careful scrutiny of the grade mean error scores in comprehension of sentences (refer Table 3) unveils the fact that for the first graders, comprehension through listening, oral reading and silent reading presented nearly the same difficulty level. But for the other three grades, comprehension was best during the listening task, followed by silent and oral reading.

The mean time taken to read the sentences aloud decreased for children from 1st through 4th grades, with significant differences being found between grade I and the other three grades. That is, the 2nd graders on an average could read sentences at a speed comparable to that of the 3rd and 4th graders. In the 1st grade, 89% of the children indulged in letter-by-letter reading, 67% of the children committed substitution and mispronuncia-

tion errors, 50% hesitations, and 61% committed errors of omissions. These errors persisted in the 2nd and 3rd grades but by 4th grade, there was a substantial decrease in oral reading errors.

In listening comprehension, majority of children committed errors regarding the "object" in the sentence. In oral reading, errors pertaining to "location" were more frequent, while in silent reading task, "subject" related errors were more common.

Table 4
Time Taken to Read the Meaningful and Scrambled Sentences

Grade	*Average time taken to read meaningful sentences(in Sec.)*	*Average time taken to read scrambled sentences (in Sec.)*
I	*54.84*	*108.63*
II	*34.17*	*89.38*
III	*31.62*	*81.50*
IV	*25.50*	*61.08*

In the sentence completion for syntax task, ANOVA results revealed significant differences between Grade I and Grade II, and between Grade III and Grade IV. Further it was seen that the majority of children from Grades 2nd to 4th, and 50% from Grade I seemed to read with meaning. This was evident from the vast differences in time taken by children at all grades to read meaningful and scrambled sentences (See Table 4).

*5. **Paragraph level** : Results revealed that dealing with paragraphs easily and efficiently was beyond majority of the Ist graders. Unlike sentence level, oral reading was found to be most effective for comprehension. As Fig. 1 reveals, comprehension of a silently read paragraph was difficult for the 2nd graders too. Only at the 4th grade the comprehension scores of oral and silent reading were comparable.*

The average time taken to read aloud the paragraph was 520 seconds, 291 Seconds, 202 Seconds and 170 Seconds, for Ist to 4th graders respectively (see Fig. 2). Total errors ranged from 76 to 15 in the four grades. Repetitions and omissions were the most frequent errors across grades. Substitutions and mispronunciations were more prominent at the Ist and 2nd grades, with 95% of Ist graders and 89% of 2nd graders making such errors. Many substitutions had the same shape and form (graphic similarity), त्याला *(him) for* त्याच्या *(his) and some had semantic similarity as* पिल्लू *for* लालू*. This kind of error implies that children were attending to the meaning, context and word form, but probably not using syllabication for word identification. Substitutions of a graphically similar whole word, with different meaning was also seen commonly in the lower grades. For example, reading* झाला *(became) as* आला *(came) and* येणार *(will come) as* होणार *(will be done) indicate overdependence on gross word form as the chief means of word identification.*

Fig. - 1
Mean error score in comprehension at paragraph level.

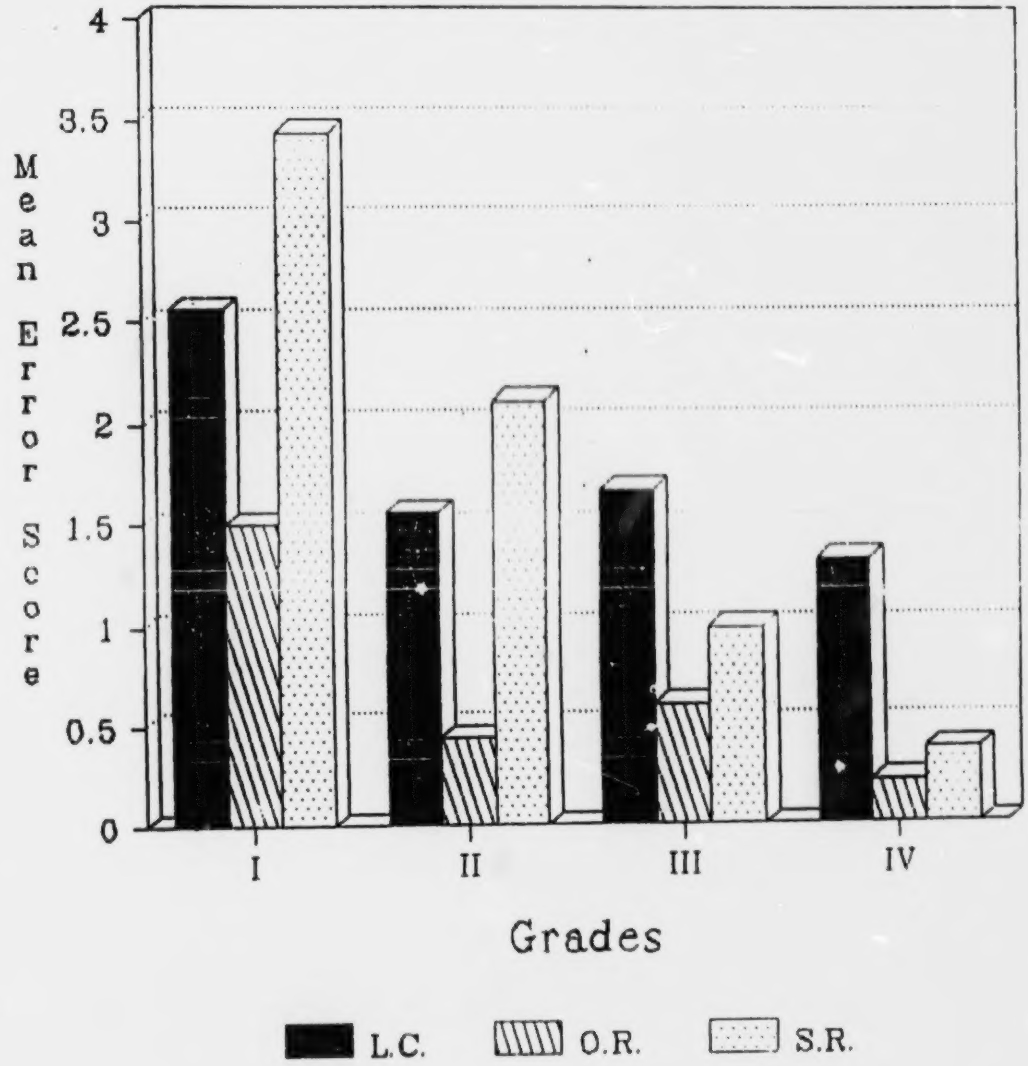
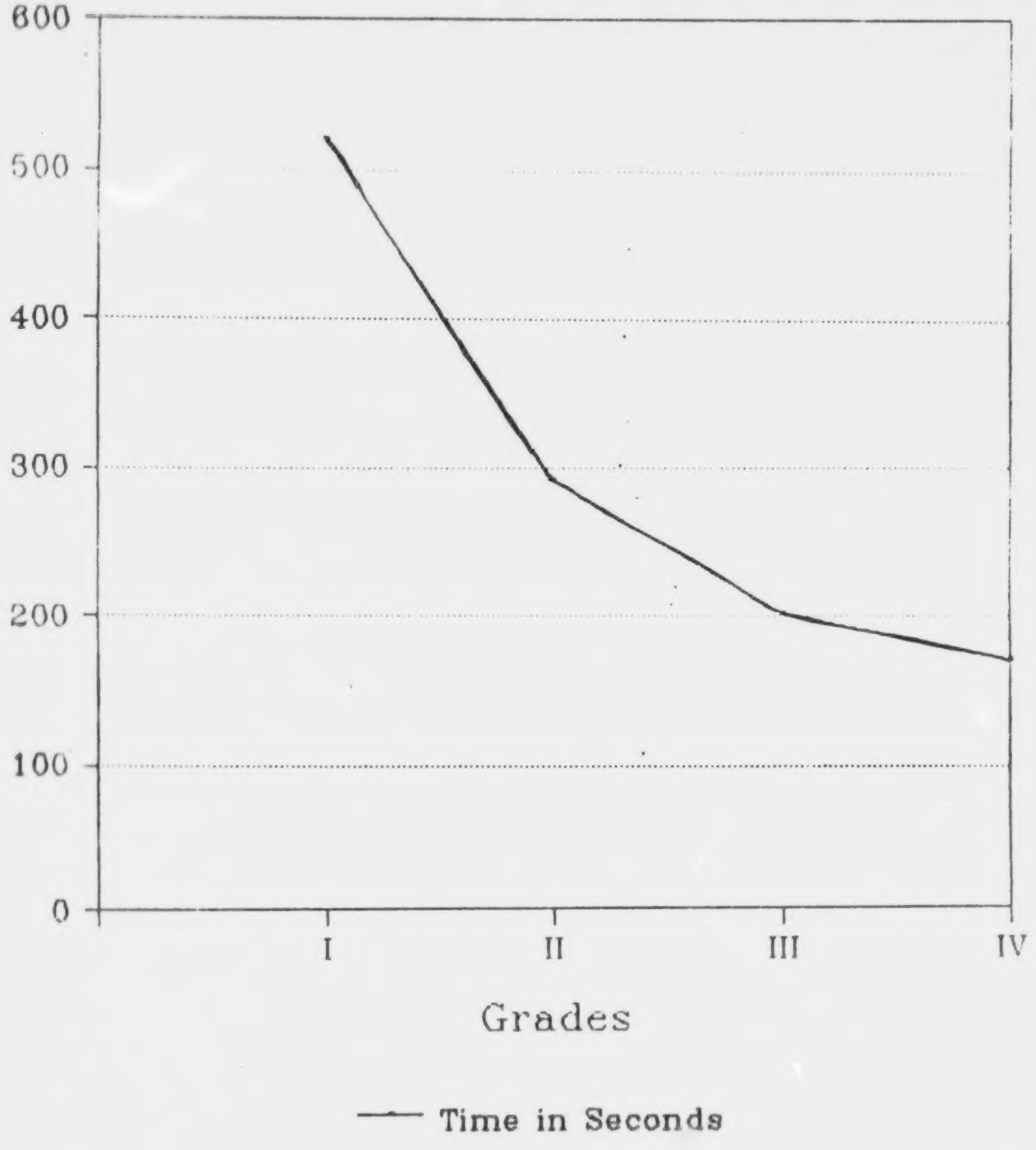


Fig. – 2
Time taken for oral reading (Paragraph)



Eighty eight percent of 1st graders and 61% of 2nd graders indulged in letter-by-letter reading of some words. Children indulged in this kind of reading especially for multisyllabic words. Children in the first two grades often evidenced mental fumbling, which is a frequent and normal part of the reading act (Spache & Spache, 1986). Omissions of letters or whole word omissions were also common. Two patterns of omission errors were noticed. Firstly, the tendency to focus on only those words which carried the substantial meaning of the sentence and omitting others; secondly, the tendency to omit multisyllabic words which were difficult to decode with speed. Only a few children disregarded punctuation while reading in Marathi. Full stop and question mark were disregarded by some children.

Grade differences were found to be significant for copying (F(3,68) = 9.3847, P=.0000) as well as dictation (F(3,68) = 10.2187, P=.0000). In the former task Grade I made significantly more errors than Grades III and IV, and Grade II than Grade IV. In the dictation task the only significant difference was that Grade I children performed poorly as compared to the older children. Children found dictation more difficult than copying. Very few errors were made by the 3rd and 4th graders in copying.

Punctuation errors were predominant at all grades in copying as well as dictation. It may be recalled that punctuation was not a problem evidenced during oral reading. Most of the children omitted the inverted commas (" ") and comma (,) marks in writing tasks. While copying, 46% and 26% of the children omitted the exclamation(!) and question mark(?), but in dictation, 94% and 63% of them omitted these two marks respectively. A large number of 1st graders omitted either a letter or a matra leading to changes in word length, in dictation and copying of paragraph. For the 3rd and 4th graders, the frequency of omissions of letters, matras and words was quite low. The substitution of letters and matras was high in the dictation of paragraphs at all grades, highlighting the confusion between long and short vowel sounds already noted in many other tasks. Among first graders incorrect formation of some letters, distancing and spacing problems or crowded writing, and omission of headline for words accounted for additional errors in copying and dictation. Among 3rd and 4th graders, these problems were not common.

Majority of the responses to spontaneous writing task were of a descriptive nature, similar to the 'essays' that the children are exposed to in school. Some children attempted to write a story, but after a beginning, reverted back to description.

Facilitative and Problematic Features of Marathi Script

I **Facilitative features of Marathi script:** *The following features can be described as those features that aid in letter/Barakhadi/word recognition and correct formation of letter/Barakhadi/word.*

* *External details aided recognition at letter level. For example* इ | ड , उ / ऊ *were not confused.*

* *Small loops acted as distinguishing features. For example, very few confused ड / ढ.*

* *Reversals were not found in any letters. Perhaps because, there is no letter which looks like the mirror image of another.*

* *Another facilitative feature was the smooth and continuous movement without stoppage of the hand. For example, writing ख, प, ट was easier for the children compared to letters like ऋ, ल and क्ष in which stoppage of motion while writing was involved.*

* *The "headline" acted like an aid to signal the end of a word and indicated the need for space before the beginning of the next word, and thus prevented overcrowding of words while writing sentences or paragraphs. The headline also prevented mix-up of two or more words while reading.*

II Problematic features of Marathi script

* *Auditorily similar letters like ळ / ल and श / क्ष were confused by a majority of children at the different grades. Surprisingly न and ळ also presented difficulty in recognition.*

* *Embedding of the distinguishing feature in the letter itself confused children. For example, children confused between ध / छ and झ / क्ष.*

* *Representation of vowel sound, that is, confusion between symbols for long and short vowels in syllables confused many children. ि / ी and ु / ू was a very common error across grades.*

A Summary of Major Findings

1. *The data on reading and writing of primary graders has indicated that on the whole, even at the first grade level the number of errors was quite low in component skill tasks.*
2. *At the letter and Barakhadi level, the errors were very few at all grade levels. Significant differences were seen between grade I and the other grades only at the word level. Only at the paragraph level the tasks significantly discriminated between the proficiency of 2nd graders from 4th graders. This indicated that 2nd graders had quite a good grasp of the letters and Barakhadi, and made very few errors while reading or writing these.*
3. *Visual memory, especially of the Barakhadi was a confusing task for the 2nd and 3rd graders. Further, the performance of children was comparatively poorer on the auditory visual matching and dictation tasks.*
4. *Most of the children could read aloud all the letters correctly.*
5. *The first graders could read the letters and Barakhadi as fast as the fourth graders. But there was significant difference in their speed of reading words, sentences and paragraphs.*
6. *The silent reading and oral reading of paragraphs discriminated the performance of 2nd and 4th graders.*
7. *While reading, the 1st grade children made more errors as compared to the other*

three grades. Omissions of punctuation marks, letters or matras, and substitutions were the common errors.

8. Confusion between long and short vowel sounds was common at the Barakhadi and word level.
9. In the writing tasks, the 1st graders copied the letters, Barakhadi,and words as efficiently as the upper grades. But in dictation, 1st and 2nd graders differed significantly from the 3rd and 4th grade level children, at the word and paragraph level.
10. In the spontaneous writing, descriptions were common. Only a few children attempted to write a story.

STUDY II - ASSAMESE

Major Highlights of the Findings :

1. Consistently significant school differences in the total number of errors were found in all the tasks at all levels, except visual matching of simple letters, the least demanding of all the tasks administered in the study. Expectedly, the differences were in favour of school 2 the school with better quality of instruction.
2. Significant grade differences were also noted in almost all the tasks, with grade I performing significantly poorly than the higher grades and sometimes grade II children committing more errors than grade IV, e.g., in oral reading and dictation at all levels, visual memory and copying of cluster letters, audio-visual association of Barakhadi and words, and visual memory of words.
3. Grade differences were largely nonsignificant between grades II and III and grades III and IV except for a few tasks at word level, indicating an early mastery of component skill tasks.
4. Grade and school interactions yielded some interesting findings. In general, children of lower grades from S1, i.e., the school with poor quality of instruction, made significantly more errors than children of higher grades of S2. However, there were very few instances of children at samegrade levels from two schools making significantly different errors inspite of the significant school effects mentioned earlier. Only in a few cases, S1 children across all grades committed more errors than S2 children.
5. Children did not find letter name discrimination to be a difficult task. (This task was administered because in Assamese, the teaching of reading and writing is heavily dependent on letter name acquisition).
6. Like Marathi, Barakhadi (a consonant character + a vowel sign) presented major difficulties, particularly the discrimination of long and short vowel signs.
7. In Assamese, children have to learn a large number of cluster letters (cluster formed with the synthesis of two or more, sometimes as many as four, consonants). These were found to be difficult by children at all grades. Children tended to substitute them either with another cluster or with the constituent simple letters.
8. In comprehension tasks, S2 children confused the target words with "semantically

similar" words, while S1 children erroneously marked "visually and auditorily similar" words.

9. *In writing tasks, sequentialization errors and omission of syllables in multisyllabic words were frequent.*
10. *Children were unable to write a simple story based on the given picture. Their productions, when legible, were of concrete descriptive kind. Formation of letters was poor and writing was crowded in many cases.*
11. *Some facilitative features of Assamese were found to be :*
    - *(i) Presence of distinguishing features outside the general configuration of the letter, for example,* ধ / ক , ই / ঈ
    - *(ii) Retention of the original shape of the constituent letters in a cluster for example,* ন + ত = ন্ত
12. *Some of the problematic features included the following :*
    - *(i) Presence of curves and loops in a letter made it confusing.*
    - *(ii) Embeddedness of the distinguishing feature in the general configuration, e.g.* ঘ / য , হ্ম / ক্ষ
    - *(iii) Cluster letters formed of the same constituent letters in different sequences were difficult, e.g.,* ষ্ক / ক্ষ
    - *(iv) Change in the original shape of the constituent letters, e.g.,* ক + ত = ক্ত

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RELATIVE CONTRIBUTION OF ANGANWADI PROGRAMME AND CHILDREN'S BACKGROUND VARIABLES AND HOME ENVIRONMENT ON THEIR DEVELOPMENTAL ABILITIES : SOME PRELIMINARY TRENDS.

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Project Guide : Veena Mistry

INTRODUCTION

In recent years, early childhood programmes have focussed more and more on care, education and overall development of children who belong to extreme poverty groups. Intervention in the form of need-based early education programmes has become necessary in order to enhance their development especially in the early years of their life. The Integrated Child Development Service (ICDS) Scheme is India's largest intervention programme which encompasses an integrated package of health, nutrition and education services to the marginal population of the society. The programme offers non-formal preschool experience to children in the age group of 3-6 years, through the anganwadi. Evaluation of the ICDS programme has been in operation in recent years. But a major issue that concerns early childhood educators, other professionals and policy planners that needs to be examined is whether the ICDS early childhood education component has an impact on children who attend the anganwadis (AWs).

Several studies have examined the contribution of the early childhood education component of ICDS on children's development. These studies highlight the positive influence of the preschool experience on major areas of development, mainly : conceptual, language, personal social,gross motor and finer motor skills (Anandalakshmy & Sharma, 1986; Mistry, Kaul & Dhar, 1986; Sood, 1987; Tarapore, Deshpande & Pendse, 1986; Kaul, 1991). In addition comparisions of AWs rated on preschool related features revealed that children from high ranking AWs scored higher on all developmental tasks than children from low ranking AWs (Anandalakshmy & Sharma, 1986; Tarapore, Deshpande & Pendse, 1986; Kaul, 1991).

But, a wide variation exists in the gains accrued by children from the intervention programmes. In order to explain these variations, there is a need to account for children's background variables and home environment. Literature has emphasized and reiterated the importance of home in influencing child's development. Quality of stimulation that children receive at home has been found to directly affect children's development. An association has also been established between the educational background of parents and achievements of their children. Thus, efforts to sustain the impact of early intervention should not overlook the role of home in affecting child's development.

Hence, it is deemed essential to examine the effects of preschool not in isolation but in accordance with important contextual factors which serve to maximize or minimize the benefits of early experience. This would help in disentangling the variables influencing child development. The focus should also encompass various programme components so that research efforts would be able to move ahead in defining precisely which preschool aspects make a difference and why (Sigel, 1990).

RATIONALE FOR THE STUDY

Literature clearly documents the need and importance of studying child's development as a sum total of effects of home and preschool related factors. Studying the preschool programme, children's background and home variables would provide a sound basis for understanding the impact of non-formal preschool education of ICDS on children's development. The effort in the present study is to assess children's development over a period of time in order to illuminate the influence of anganwadi programme and children's home variables. The development of children's abilities cannot be measured only with reference to influence of preschool experience in isolation, therefore a sum total of home variables along with preschool related factors form the focus of the study, in determining the extent to which they shape children's developmental abilities.

MAJOR OBJECTIVE

To determine the contribution of the non-formal preschool component of ICDS (anganwadi programme), age, period of exposure and Home environment on the developmental abilities of children.

SPECIFIC OBJECTIVES

To attain the above mentioned major objective the following specific objectives have been delineated.

1. *To study the contribution of the anganwadi programme on the developmental abilities of children.*
2. *To study the effect of age and period of exposure to the anganwadi on the developmental abilities of children.*
3. *To determine the contribution of Home environment on the developmental abilities of children.*

METHOD

SAMPLE

The sample for the study was selected from Coimbatore urban ICDS block. The total number of children was 150. The sample was selected from eight AWs and was divided into 77 children drawn from four low ranking AWs (LRA) and 73 children drawn from four high ranking AWs (HRA). The age range of the sample was 3.0-4.6 years. The median value of the ages was 3.10 years. Based on this, the children were grouped into younger age group (3-3.10 years) and older age group (3.11-4.6 years). The sample was selected from three income groups : Rs.200-400, Rs.401-600 and Rs.601 and above.

TOOLS

Observation checklist for evaluation of the anganwadi programme and the anganwadi worker.

Developmental checklist to assess developmental abilities, mainly : gross motor, finer motor, conceptual, language and personal social skills.

Modified Home Inventory to get information on language stimulation, variety of stimulation and physical set-up of the home environment.

PROCEDURE OF DATA COLLECTION

* 10 AWs were observed across three observations and average score of the observations for each AW was obtained. The median value of the scores was 54.5. Two AWs whose scores were closest to the median were not considered in the sample. Thus four LRAs (scores ranging from 45.6 - 50.0) and four HRAs (scores ranging form 59.0 -60.0) formed the sample for the study.

* The assesment of developmental abilities of children was done in three phases. The children were assessed three times every six months.

* Information on Home Environment was collected for fifty percent of the children from LRA and HRA.

Plan of Analysis

Based on the objectives of the study, relationships of independent measures to the dependent measures were studied using the following plan of analysis :

1. Effect of the AW programme on children's developmental skills was viewed using means and SDs of performance scores of round 1,2 and 3.
2. Effect of period of exposure to the AW programme on children's developmental skills was viewed using 't' test to determine significance of difference among performance scores of round 1,2 and 3.
3. Effect of quality of AW programme (HRA and LRA) on children's developmental skills was viewed using means and SD's of performance scores of round 3 and progress scores i.e. difference between round 1 and round 3 scores.
4. Effect of the home environment on children's developmental skills was viewed using means and SDs of performance scores of round 3.

RESULTS AND DISCUSSSION

The present study aimed to investigate the impact of the non-formal preschool component of ICDS in terms of the period of exposure and the quality of the AW programme. The study also investigated the effect of age on skill acquisition and the age appropriateness of the preschool programme offered. Besides this, an effort was made to study the child not *only in the context of the AW programme but also in context of the home.*

The following results and discussions have been dealt with reference to each objectives of the study viz.,

1. *effect of exposure to the AW programme on children's developmental skills,*
2. *comparisons of two groups of children on their developmental skills,*
3. *effect of age on children's acquisition of developmental skills,*
4. *effect of home environment on children's aquisition of developmental skills.*

EFFECT OF EXPOSURE TO THE AW PROGRAMME ON CHILDREN'S DEVELOPMENTAL SKILLS

Examination of performance scores of children indicated that ICDS preschool experience had a positive influence on children's overall development. The highest gains were in the areas of conceptual readiness and finer motor skills. This was followed by gross motor, personal social and language skills (Table 1).

Further examination of data revealed that children showed consistent improvement in each of the five developmental areas over a peiod of time. The 't' values ($P<.01$) in Table 1 indicate that the performance of children in the second half of the total period of exposure (one year) was significantly higher than the performance in the first half for gross motor, finer motor and personal social skills. Though the performance on language and conceptual skills in the second half of the period of exposure was not higher than the first half, the difference was, nevertheless, significant. Thus, continuous exposure to the AW programme over a period of time significantly enhanced children's development in all skill areas.

COMPARISIONS OF TWO GROUPS OF ICDS CHILDREN ON THEIR DEVELOPMENTAL SKILLS

Apart from exposure to the AW programme, the contribution of age to skill acquisition cannot be ignored. Further analysis of the data showed that the AW programme also played a major role in children's skill acquisition. To see the impact of the AW programme on children's developmental skills the performance of children from high ranking and low ranking anganwadis was compared. The quality of the AW programme was determined largely by the physical set-up of the preschool; organization of activities; implementation of the programme; worker-child interaction; skills possessed by the AW worker and parent-worker involvement. Higher ranking AWs (HRA) positively fulfilled these requirements to a larger degree and low ranking AWs (LRA) to a lesser degree.

Table 1

`t' Test Comparing Round One, Round Two and Round Three Scores on Developmental Skills of Children

Areas	Scores				t value			P level
	R1	R2	R3	R3-R1	R1R2	R2R3	R1R3	
Gross Motor Skills								
Total	1481	1576	1678	197				
M	9.87	10.51	11.19	1.32	3.50	3.76	7.27	0.01
	(82.27)	(87.56)	(93.22)	(10.95)*				
SD	2.00	1.70	1.45					
Conceptual Readiness Skills								
Total	2167	2435	2631	464				
M	14.45	16.23	17.54	3.09	3.29	2.40	5.69	0.01
	(53.51)	(60.12)	(64.96)	(11.45)				
SD	4.59	4.70	4.82					
Language Skills								
Total	936	1029	1109	173				
M	6.24	6.86	7.4	1.16	3.46	2.41	5.86	0.01
	(52.0)	(57.17)	(61.61)	(9.61)				
SD	1.90	1.85	1.75					
Personal Social Skills								
Total	677	727	818	141				
M	4.51	4.84	5.45	0.94	1.51	2.76	4.27	0.01
	(50.15)	(53.85)	(60.59)	(10.44)				
SD	1.90	1.95	1.86					
Finer Motor Skills								
Total	1368	1453	1626	258				
M	9.12	9.69	10.84	1.71	2.08	4.23	6.31	0.01
	(60.8)	(64.58)	(72.27)	(11.47)				
SD	2.34	2.34	2.40					

Note : * Figures in parantheses indicates percentage scores out of a maximum possible score.

The 't' values shown in Table 2.1 indicate that the mean performance scores of children from LRA and HRA differed significantly on the developmental skills, with the difference in favour of children from HRA. Two major conclusions drawn were : (a) the range of difference observed in the two AW programmes was large enough to be reflected on children's performance, thus indicating a clear relationship between the quality of preschool programme and children's performance on developmental skills (Table 2), and (b) the difference between performance of the two groups of children was significant for each of the five developmental skill areas (Table 2.0). However, the 't' values indicate that the maximum difference in performance on developmental skills were for personal social, finer-motor and conceptual and readiness skills, and to a lesser degree for language and gross motor skills.

Data also indicated that the two groups differed on the rate of skill acquisition of developmental skills in conceptual skills, personal social skills, language skills and finer motor skills, with the difference in favour of children from HRA (Table 2.1). However, the difference was not noticeable in children's gross motor skills. Thus the quality of the AW programme was related to both the developmental level as well as the rate of development over a period of time.

Table 2

't' Test Comparing Two Groups of ICDS Children on Developmental Skills (R3 scores)

Areas		*HRA n1=73*	*LRA n2=77*	*t*	*(P level)*
Gross Motor Skills	*M*	*11.81* *(98.40)*	*10.6* *(88.31)**		
	SD	*0.64*	*1.74*	*3.19*	*0.001*
Conceptual & Readiness Skills	*M*	*19.77* *(73.21)*	*15.43* *(57.14)*		
	SD	*3.41*	*5.00*	*6.15*	*0.001*
Language Skills	*M*	*8.33* *(69.41)*	*6.51* *(54.22)*		
	SD	*1.33*	*1.63*	*4.10*	*0.001*
Personal Social Skills	*M*	*6.41* *(71.23)*	*5.56* *(50.65)*		
	SD	*1.64*	*1.59*	*7.83*	*0.001*
Finer Motor Skills	*M*	*12.08* *(80.55)*	*9.66* *(64.42)*		
	SD	*1.80*	*2.31*	*7.12*	*0.001*
TOTAL	*M*	*58.44* *(77.92)*	*46.75* *(63.34)*		
	SD	*6.12*	*8.94*		

Note : HRA = high ranking anganwadis;
LRA = low ranking anganwadis;
* *Figures in parentheses indicate percentage scores out of a maximum possible score.*

Table 2.1

Mean and SD of R3-R1 Scores on Developmental Skills by the type of Anganwadi (High Ranking AWs and Low Ranking AWs)

Areas		*HRA* *n1=73* *R3-R1*	*LRA* *n2=77* *R3-R1*
Gross Motor Skills	*M*	*1.34* *(11.19)**	*1.30* *(10.82)*
	SD	*1.49*	*1.22*
Conceptual & Readiness Skills	*M*	*5.21* *(19.28)*	*1.23* *(04.57)*
	SD	*3.70*	*2.15*
Language Skills	*M*	*1.44* *(11.99)*	*0.88* *(07.36)*
	SD	*1.2*	*1.38*
Personal Social Skills	*M*	*1.27* *(14.15)*	*0.61* *(06.78)*
	SD	*1.47*	*0.91*
Finer Motor Skills	*M*	*2.94* *(19.59)*	*1.04* *(06.93)*
	SD	*1.94*	*2.33*
TOTAL	*M*	*11.59* *(11.45)*	*4.97* *(06.63)*
	SD	*5.99*	*3.85*

Note : HRA = high ranking anganwadis.
LRA = low ranking anganwadis;
R3-R1 = progress scores;
* *Figures in parentheses indicate percentage scores out of a maximum possible score.*

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EFFECT OF AGE ON CHILDREN'S ACQUISITION OF DEVELOPMENTAL SKILLS

The two age groups of children (3.0-3.10 years and 3.11-4.6 years) were compared on performance scores of round three and on difference between round one and round three scores (rate of skill acquisition). As indicated in Table 3.0, children in older age range performed better than the younger age children on all the developmental skills. Thus the data indicated that there was increase in childrens's developmental skills with corresponding increase in their age. The increase was most evident for gross motor, language and conceptual skills.

On comparing the two groups of children across time, it was found that the rate of skill acquisition (R3-R1 scores) was faster for the younger group than the older group. This was evident for gross motor skills (Table 3.0). This may be attributed to a developmental spurt in the early years. After this initial spurt, the rate of acquisition slows down, thus showing decrease in the rate of skill acquisition in the later years. It may also be argued that the preschool programme at the AW does not offer opportunities for older children to practice higher level skills. The earlier study by Kaul (1991) indicated that the anganwadi programme catered more towards the needs of younger children.

However, the rate of acquisition of conceptual skills was higher for older children. This was perhaps due to the reason that to acquire higher order skills like conceptual skills, other basic skills need to be acquired first. Children's abilities to manipulate, to verbalise and to interact with others would aid in acquisition of concepts.

EFFECT OF HOME ENVIRONMENT ON CHILDREN'S ACQUISITION OF DEVELOPMENT SKILL

Based on the scores obtained from the home inventory, children were categorized into those coming from poor stimulation homes, from moderate stimulation homes and from high stimulation homes. Performance scores of these three groups of children were compared on developmental skills.

Findings revealed that varying degrees of home stimulation accounted for difference in the mean scores obtained by children on developmental skills. Children coming from moderate to high stimulation homes scored higher on the developmental skills as compared to children coming from poor stimulation homes (Table 4.0). High to moderate stimulation homes influenced performance on reading skills, language skills, finer motor skills and gross motor skills. However, the difference was less noticeable for personal social skills (Table 4.0). Thus it can be concluded that a stimulating home environment influences the acquisition of various developmental skills in children.

The difference between the scores of the first and third assessment indicated that the rate of acquisition of developmental skills was higher for children from moderate to high stimulation homes than for children from poor stimulation homes.

Table 3

Mean and SD on the Five Developmental Skills by Age

	Age in years					
	Younger group n1=76			*Older group n2=74*		
	R1 Scores 3.0-3.10 yrs.*	*R3 Scores 4.0-4.10* yrs.*	*R3-R1*	*R1 Scores 3.11-4.6* yrs.*	*R3 Scores 4.11-5.6* yrs.*	*R3-R1*
Gross Motor Skills						
M	*9.50*	*10.93*	*1.43*	*10.22*	*11.44*	*1.22*
	(79.17)	*(91.12)*	*(11.95)*	*(85.16)*	*(95.32)*	*(10.16)***
SD	*2.25*	*1.68*	*1.38*	*1.62*	*1.13*	*1.34*
Conceptuals Readiness skills						
M	*13.10*	*16.01*	*2.92*	*15.25*	*18.47*	*3.22*
	(48.49)	*(59.31)*	*(10.82)*	*(56.49)*	*(68.42)*	*(11.92)*
SD	*4.43*	*4.96*	*3.62*	*4.32*	*4.13*	*3.54*
Language Skills						
M	*5.76*	*6.99*	*1.22*	*6.56*	*7.67*	*1.10*
	(48.03)	*(58.22)*	*(10.20)*	*(54.80)*	*(63.93)*	*(09.13)*
SD	*1.91*	*1.94*	*1.27*	*1.83*	*1.58*	*1.38*
Personal Social Skills						
M	*3.03*	*5.03*	*0.96*	*4.86*	*5.78*	*0.91*
	(33.63)	*(55.85)*	*(10.67)*	*(54.17)*	*(64.23)*	*(10.06)*
SD	*1.86*	*2.00*	*1.18*	*1.88*	*1.70*	*1.34*
Finer Motor Skills						
M	*8.38*	*10.37*	*1.99*	*9.66*	*11.10*	*1.44*
	(55.88)	*(69.12)*	*(13.25)*	*(64.41)*	*(74.00)*	*(09.59)*
SD	*2.58*	*2.75*	*2.23*	*1.90*	*2.17*	*2.27*

Note : * = same children in first and third assessment with period of exposure of one year);
***** Figures in parantheses indicates percentage scores out of a maximum possible score.***

Table 4.

Mean and SD on Developmental Skills by Home Environment

Areas		*Poor*	*Moderate*	*High*
*Gross Motor Skills**	*M*	*10.22 (85.19)*	*11.44 (95.39)*	*11.60 (96.67)****
	SD	*1.64*	*1.31*	*0.84*
*Conceptual & Readiness Skills**	*M*	*16.33 (60.49)*	*18.80 (69.63)*	*18.30 (67.78)*
	SD	*5.36*	*4.05*	*3.68*
*Language Skills**	*M*	*6.44 (53.70)*	*7.67 (63.88)*	*8.10 (67.50)*
	SD	*1.81*	*1.61*	*1.37*
*Personal Social Skills**	*M*	*5.80 (55.56)*	*5.86 (65.08)*	*5.80 (64.44)*
	SD	*2.40*	*1.79*	*1.32*
*Finer Motor Skills**	*M*	*10.22 (68.15)*	*11.21 (74.76)*	*12.00 (80.00)*
	SD	*2.22*	*2.33*	*2.36*
*TOTAL **	*M*	*48.22 (64.30)*	*54.98 (73.24)*	*55.80 (74.27)*
	SD	*11.11*	*8.43*	*6.91*
*Progress ***	*M*	*7.11 (09.48)*	*8.52 (11.38)*	*7.89 (10.52)*
	SD	*2.76*	*7.45*	*4.54*

Note : * *R3 scores;*

** *R3 - R1 scores;*

*** ***Figures in parentheses indicate percentage scores out of a maximum possible score.***

THE TRENDS OF RESULTS THAT EMERGE CAN BE SUMMARISED AS FOLLOWS :

1. *The ICDS preschool experience has a positive influence on children's development in all the five developmental skill areas. This improvement was consistent across time period which could be attributed to the continuous exposure to the AW programme over a period of time.*
2. *There was a clear relationship between the quality of the AW's preschool programme and children's skill development. Children from higher ranking AWs performed signifcantly better in all the five developmental areas compared to children from lower ranking AWs. The rate of acquisiton of the developmental skills was higher for children of higher ranking AWs in comparison to the children from lower ranking AWs.*
3. *As expected there was a difference in performance between the younger and older age group of children on all the developmental skills except gross motor skills. Thus, there was an increase in children's developmental skills with corresponding increase in their ages. Difference was also observed in the rate of skill acquisition with the younger group of children acquiring skills at faster rate. However, the rate of acquisition of conceptual skills was higher for older group of children in comparison to the younger group.*
4. *With reference to the home environment the results indicate that children from high and moderate homes performed better on overall developmental skills compared to children from poor stimulation homes.*

The review of researches has established and reflected upon the positive impact of intervention programmes especially for children from poorer sections of the society. While accepting that the inputs in the AW programme in terms of infrastructure facilities, availability of material and equipment and quality of professional training of anganwadi workers are bare minimal, the fact that the non-formal preschool education programme has a positive impact on children's developmental skills, is indeed heartening. More encouraging is the finding that improvement in the quality of anganwadi's non-formal preschool education programme aids further in the acquisition of developmental skills of children. This has implications for policy in terms of marginal increase in infrastructure facilities and enhancing the quality of training for the ICDS presonnel so that activities provided to children are relevant to their developmental needs.

As expected, with corresponding increase in children's age there is an increase in developmental skills of children. However, the data also indicated that the rate of aquisition of the five developmental skills (with the exception of conceptual skills) was faster for the younger age group. It is plausible that the AW activities provide more scope for the development of younger children and not development of higher level skills in older children. This finding has an important policy implication concerning the performance of older age group. To strengthen the gains accrued from ICDS experience there is a need to *provide experiences that are catering to the needs of the older age group. The AW preschool programme should have scope for age appropriate intervention. The answer lies in a developmentally oriented curriculum that responds to the changing needs of the developing child (UNICEF, 1989; Kaul, 1991).*

On investigating the home environment of the children, the findings that emerged supported the assumption that children coming from moderate to high stimulation homes acquired a higher level of congnitive functioning than their counterparts coming from low stimulation homes. This was true for all developmental skills except personal social skills. Findings also indicated that the rate of acquisition of developmental skills was higher for children from high and moderate stimulation homes than children from low stimulation homes. The home is seen as an important learning environment for children and accounts for children's development of various abilities. This finding has policy implications concerning the home as a major learning environment for children. Intervention programmes such as the AW preschool programme need to work in collaboration with the home. Parents have to be involved in their children's development. Thus, education programmes for parents on the importance of child care, education and development become a necessity in order to strengthen the intervention programme (Kaul, 1991).

A holistic and context specific approach is thus the need of the hour. The age of the child and the concommitant developmental needs, the quality of anganwadi programme and the home environment in tandem have a better impact on children's acquisition of developmental skills. Hence the emphasis now needs to be on the strategies for achieving this coordination. It calls for more inputs in terms of supervisory skills with specific reference to the preschool programme of anganwadis and towards linking home and anganwadi programme.

Intervention research is a complex and an extensive task. The need to map relationships among variables related to programmes, training, evaluation and home environment would help professionals and researchers to improve the programme in favour of children's development.

* *Data analysis and report writing by Ms. Mrunalini Lele.*

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ASSESSMENT OF WOMEN'S SELF-ESTEEM IN DIFFERENT SETTINGS

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Project Guides : Amita Verma & Shagufa Kapadia

ABSTRACT 1

The objectives of the present study were : (1) to tap the sources and manifestations of self-esteem in women from rural and tribal areas of Udaipur, Rajasthan, and (2) to develop an alternate measure to assess self-esteem in rural and tribal women. The sample consisted of 40 women, 20 each from selected rural and tribal areas of Udaipur district. The case study approach was used to (i) gain insight into the sociocultural milieu of rural and tribal women, and (ii) identify the sources of self-esteem and its manifestations. The results indicated scarcity or lack of resources, excessive work burden and drudgery, relationships within the family, and knowledge of special skills as the sources of self-esteem in both the rural and tribal women. The information obtained from (i) the case studies, and (ii) interviews with three 'women-in-development' workers on the characteristics of rural and tribal women with high and low self-esteem will be used to develop an alternate measure of self-esteem that is feasible with such a group.

ABSTRACT 2

The primary objective of the present study was to cross-validate the Self-Esteem Scale for Women (SESW) developed in the Department of Human Development and Family Studies. The secondary objectives were to (i) gain insight into factors influencing the development of self-esteem in women, and (ii) examine the relationship between self-esteem and selected socio-economic and demographic variables. The sample consisted of 180 women in the age range of 20 to 50 years from Parbhani town of Marathawada region in Maharashtra. Two different techniques viz., rating scale (SESW) and case study, were used to assess self-esteem in women. The two ratings provided highly corresponding information regarding self-esteem, thus offering considerable support to the cross-validity of the SESW. Childhood experiences, feedback from significant others, marital life experiences and specific achievements emerged as the salient factors involved in the formation of self-esteem. Amongst the background variables, age, education, employment, income, and satisfaction with children's achievements were found to be significantly associated with women's self-esteem.

THE BACKGROUND

The two studies related to women's self-esteem undertaken in the IDRC-HDFS Research Network form part of a larger research project related to 'Identifying linkages between women's self-esteem and development'. The project aims to gain insight into the phenomenon of women's development/empowerment. Empowerment is a multi-dimensional ongoing process in which the outcomes produced in turn lead to further participation in the process. The present research focuses on certain individual level factors involved in women's empowerment, with self-esteem as one critical parameter of this process. Specifically, the research aims to achieve a descriptive - analytical understanding of three sets of variables viz., socioeconomic status and demographic factors, personality variables and behavioural variables. The central assumption of the study is that such researches are necessary precursors serving as theoretical bases for conceiving programs for women's empowerment.

The research was planned in two phases. Phase I included the development of a tool to measure self-esteem in women. Phase II focused on examining the linkages between the three sets of parameters of women's empowerment. The studies conducted in the IDRC-HDFS Research Network were planned to feed into Phase I of the research. More specifically, both the studies aimed to further strengthen and validate the Self-Esteem Scale for Women (SESW)) that was developed in this phase.

INTRODUCTION AND REVIEW OF LITERATURE

In the past decade, substantial efforts have been directed towards women's development mainly in terms of focusing attention on conceiving and implementing various programs. Parallel to this, a strong feminist perspective has emerged which has concerned itself with a wide range of issues pertaining to development policies and programs. Apart from critiquing many of the adverse effects of development approaches, this perspective is also proposing new visions of development. The call for 'empowerment of women' is one hallmark of this vision (Bunch & Carrillo, 1990).

SELF-ESTEEM AS A KEY ELEMENT OF EMPOWERMENT

A comprehensive framework of empowerment would include factors in the larger social system, the family dynamics and individual level parameters. Though empowerment definitions vary, there seems to be a consensus (at least within human and social science disciplines) that the essence of empowerment involves a process of growth and development leading to deliberate efforts to bring about change (Wedeen, La Cour, & O'Keefe, 1991). Consciousness-raising is thus a key element of the empowerment process, and programs for the same strive to enable women to recognize and change the existing situation that limits their roles (Tinker, 1990).

Strategies for women's empowerment must be thought of in an integrated manner taking into consideration the multi-faceted feature of this phenomenon. Dandekar (1986) emphasizes four parallel aspects that need to be understood in order to realize the goal of 'real' development.

They are :

1. *"The woman's economic/resource base ;*
2. *The public/political arena allowed her by society ;*
3. *Her family structure and the strengths it provides and the limits it imposes on her; and*
4. *Perhaps most important, the psychological/ideological 'sense' about women in her society, a sense which shapes her own perception of herself and the options she allows herself to consider" (p.25).*

The woman's personal dimension within her culture needs a special analysis as the psychosocial realm of women is a critical dimension of empowerment. As succinctly observed by Parikh and Garg (1989), with specific reference to Indian women, growing up in the society means arriving at and crossing of a threshold with two anchors - one social and the other psychological. The social threshold refers to biological and chronological growth and transition of roles. The psychological threshold, however, implies a review and assessment of resources of the self, offering oneself the autonomy of moulding one's tomorrow, and most importantly, arriving at one's personhood. Most women, however, remain entrenched at the social threshold and prescriptive role models. The traditional image of womanhood that is primarily modeled on the ideal behavior patterns comprising of restrictive roles is still largely cherished. Not surprisingly, therefore, on the surface at least, women appear satisfied with their traditional ideology and positions.

The importance of women's feelings of value and power has been referred to by many women in development/feminist scholars (e.g., Dandekar, 1986; Epstein, 1989). As Epstein (1989) aptly comments, "Women are so much cocooned by various social layers that they often cannot and do not want to bring about changes, in their traditional life styles" (p.57). This tends to perpetuate the status quo which is altogether contrary to the phenomenon of women's empowerment. As advocated by many women-in-development scholars, the core of women's empowerment involves questioning the existing structures, realizing the value of one's contributions and developing a `renewed' sense of self-worth or self-esteem.

WHAT IS 'SELF-ESTEEM'?

Self-esteem is the answer to the question, "How does the `I' evaluate the components and the totality of the `me'?" (Harter, 1983, p.178). Simply put, self-esteem is the positive or negative value attached by an individual to what she is and what she does (Coopersmith, 1967). A term that is closely related to and one that is often used interchangeably with self-

esteem is self-concept. According to Hamachek (1971), self-concept is the purely descriptive aspect of one's self-perceptions, for example, "I am a student". On the other hand, self-esteem is the evaluative component of our self-perception; for instance, "I am an `average' student". In other words, self concept is the cognitive part of the self, whereas self-esteem is the affective dimension.

HOW DOES SELF-ESTEEM DEVELOP ?

The development of self-esteem involves myriad factors. Many scholars (e.g., Coopersmith, 1967; Sanford & Donovan, 1984) have emphasized the importance of early experiences. While levels of self-esteem can change over time, the individual would "...have a solid foundation of self-esteem, if in ...(her) early years she acquired a sense of significance, a sense of competence, a sense of connectedness to others balanced by a sense of separateness..." (Sanford & Donovan, 1984, p.38).

Rosenberg (1967) enumerates four general principles that simultaneously influence the formation of self-esteem. They are :

Reflected appraisals: This includes (i) "direct reflections" which indicate how others directly respond to us and, (ii) "perceived selves" which denotes how we think others perceive us.

Social comparisons: It means that people evaluate themselves by comparing themselves with others.

Self-attribution: Self-attribution refers to people observing themselves in various situations and forming their self-esteem based on these observations.

Psychological centrality: It means that different people assign different amounts of importance to various aspects of the self. For example, among two individuals who are poor at academics, one may arrive at a lower self-esteem if she values academics while it may not affect the other person who places a greater value on artistic talent.

Along similar lines, Hales (1979, cited in Harter, 1983) delineates three generic sources of self-esteem. These comprise of

- the inner source, which includes a sense of competency and efficacy,
- the outer source, which is based on approval by others, and
- moral integrity, which includes appraisal of congruence between one's own internalized moral standards and one's social behavior.

MEASUREMENT OF SELF-ESTEEM

Despite the complex and dynamic nature of the construct, many efforts have been made to assess self-esteem. Amongst the different methods used, the most common is the self-report technique. This technique, however, poses specific problems in establishing construct validity as, by definition, an individual's cognitions and attitudes about herself are private and generally beyond direct observation by the investigator (Wylie, 1974).

Generally, validation studies involve correlating the measure in question with other 'reliable' and 'valid' measures of the concept and also with measures of concepts that *supposedly correlate or uncorrelate to the focal concept. A major pitfall of this procedure is that the desirable correlations may possibly be derived more on account of shared method variance. The multitrait-multimethod approach (a' la Campbell & Fiske, 1959) is useful in dealing with such problems. If two different measures of the same concept correlate, it gives 'sounder' proof of its validity.*

One prime consideration in assessing a construct such as self-esteem is that of ecological validity. Any given measure must be in consonance with the sociocultural milieu of the group for which it is developed in terms of the content and the model/approach of assessment. For instance, a measure that is 'standardized' on an urban group may not be applicable in a rural setting. This would be especially true in case of a dynamic construct such as self-esteem for it is likely to vary with varying cultural and sub-cultural contexts. In developing a measure it is important, therefore, to obtain ethnographic information of the group/culture under consideration. This would provide insight into the sources or antecedents of self-esteem in specific groups and thereby clarify the framework to be used for developing the measure.

Another important validation issue that merits attention is that of cross-validation. This term refers to the process of validating a test by using a population sample other than the one on which the instrument was originally standardized (Freeman, 1965). It is necessary that any tool is validated periodically to assess its applicability at different locations. According to Freeman (1965), a tool that is used in a variety of situations and by many different persons is being constantly cross-validated. This practice gives important feedback regarding the value of the tool.

The two studies reported subsequently were designed to further strengthen the Self-Esteem Scale for Women (SESW) developed as part of Phase I of the larger research project.

THE SELF-ESTEEM SCALE FOR WOMEN (SESW)

The SESW is a three-point, Likert type scale measuring global self-esteem of an individual at a given point of time. It consists of 41 items, 18 positive and 23 negative, with three alternatives viz., most often, sometimes and rarely. The points assigned to the items are 3,2,1 respectively for positive items and the reverse for negative items. The items are related to different dimensions of self-esteem (such as self-confidence, anxiety, helplessness, self-satisfaction). Reliability and validity of the SESW has been established. Table 1 presents information regarding the reliability and validity of the tool.

The psychometric considerations described above lend support to the reliability and validity of the SESW. However, self-esteem being a complex and dynamic construct, it is advisable that a tool to assess it is periodically validated in different settings and with different groups of individuals. This orientation resulted in planning two studies primarily aimed towards validating the SESW in settings different from the one in which the tool was developed and standardized.

The studies purported to :

1. *apply the SESW and establish its validity in three different settings, urban, rural and tribal, and*
2. *if necessary, develop an alternate measure to assess self-esteem in different sociocultural settings.*

In both the studies, self-esteem has been operationally defined as the value or worth ascribed to one's self-descriptions.

STUDY I

Assessment of Self-Esteem in Women

(Visala Patnam, Marathwada Agricultural University, Parbhani, Maharashtra.)

OBJECTIVES

The primary objective of the study was to cross-validate the Self-Esteem Scale for Women (SESW), by (i) implementing it on a sample of women from Parbhani city, and (ii) using the case study approach as an alternate method of validating it.

The secondary objectives were :

- *to gain insight into the fators influencing the formation of self-esteem in women,*
- *to examine the relationship between selected socioeconomic and demographic variables and self-esteem in women.*

SAMPLE

A stratified random sample of 180 women in the age range of 20 to 50 years from the low, middle and high socio-economic strata was selected. The subjects were identified from ten areas of Parbhani town in the Marathwada region of Maharashtra state. The areas were Vidyanagar, Saraswatinagar, MAU campus, Shankarnagar, Labourer's Colony, Jagrati colony, Shivramnagar, Vaibhavnagar, Gandhi Chowk, and Prabhawatinagar. The sample distribution is as follows :

	Socioeconomic Status			
Age (in years)	*Low*	*Middle*	*High*	*Total*
21 - 30	*20*	*20*	*20*	*60*
31 - 40	*20*	*20*	*20*	*60*
41 - 50	*20*	*20*	*20*	*60*
Total	*60*	*60*	*60*	*180*

TOOLS

1. ***The Self-Esteem Scale for Women (SESW)** was used to assess self-esteem.*
2. ***Case Study Guidelines** : Guidelines for conducting studies were developed. The major aspects covered were individuals' experiences across various life stages (such as childhood, adolescence, adulthood) which included experiences/events such as education, marriage, employment; aspirations and achievements in life; significant events in life; and reflections on one's personal self.*

PROCEDURE OF DATA COLLECTION

1. Administration of the SESW

- *The SESW was first translated into the local language Marathi and retranslated into English by two individuals who are well-versed in both the languages. This was done mainly to increase the accuracy of the translated version.*
- *The Marathi version of the tool was administered to the sample of 180 women.*
- *After an interval of two months, the tool was again administered to a sub-sample of 30 women who were randomly selected from the total study sample. This was done to establish test-retest reliability.*

2. The case studies

Of the total sample of 180 women, 18 women were identified at random to conduct the case studies. In order to maintain objectivity, the case studies were conducted by an investigator other than the one who had administered the SESW. Each case study required three to four visits, each of approximately two hours' duration.

ANALYSIS.

1. Test-retest reliability

Correlations were used to assess the test-retest reliability of the SESW. Specifically, the scores obtained on the first administration were correlated with the scores obtained on the second administration which was after an interval of two months.

2. Internal consistency

The internal consistency, i.e., the homogeneity of the test, was assessed by means of the Cronbach's Alpha.

3. Inter-rater reliability of the ratings derived from case studies.

The inter-rater reliability of the ratings on SESW derived from the case studies was established by obtaining three independent ratings from three different investigators, none of whom participated in the actual data collection. This was done for six case studies. The following formula was used.

Agreement (A) = $(U-De)/(U + 1/2\,X) \times 100$ *(Saraswathi & Dutta, 1988, p.31).*

U = *Total number of instances agreed*

De = *Total number of disagreements in coding*

X = Total number of items coded by one person and not by another.
Based on this formula, the percentage of consensus was derived.

Comparison of SESW Ratings

The case study scripts were carefully scrutinized and used to rate the SESW. This was done by an investigator who was not involved in the data collection procedure. The ratings of the subjects obtained through the earlier direct administration of the SESW (Rating I) were compared to the ratings made on the basis of the case studies (Rating II). For each of the 18 subjects, the discrepancies between the two ratings were noted in terms of frequencies. Further, a paired t-test was computed to compare the mean scores on Ratings I and II.

Factors Influencing Self-Esteem.

Each case study was carefully scrutinized by three investigators and the various factors indicated as influencing self-esteem were culled out. Points of discrepancy were discussed and sorted out to arrive at a consensus regarding the factors involved. The factors that featured commonly in approximately 50 percent and more case studies were included in the final set of factors.

Relationship Between Self-Esteem And Selected Socioeconomic And Demographic Variables

1. *To assess the effect of different categories of education, employment, income and age, four independent Oneway Anovas were computed.*
2. *T-test was used to compare self-esteem of women having or not having male children, and women who were satisfied or dissatisfied with their children's achievements.*

RESULTS

The results are presented in the following sequence :

1. *Test-retest reliability and internal consistency co-efficients.*
2. *Validation of SESW through case studies.*
3. *Factors influencing self-esteem in women.*
4. *Influence of selected socioeconomic and demographic variables on self-esteem in women.*

TEST-RETEST RELIABILITY.

A correlation coefficient of 0.97 was obtained between the two administrations of SESW on a sample of 30 women. This indicates a very high test-retest reliability of the tool.

INTERNAL CONSISTENCY.

The Cronbach's alpha used to compute the internal consistency of SESW was found to be 0.99, thereby endorsing the homogeneity of the tool.

Realiability and Validity of the Self-Esteem Scale for Women (SESW)

Type of Reliability	*Tool used*	*Expected direction of correlation*	*Coefficient obtained*
Internal consistency	*Cronbach's alpha*	*Positive*	*0.81*
Test-Retest reliability (over a period of one month)	-	-	*0.86*
Type of Validity			
Concurrent	*Philip's Self Acceptance Scale*	*Positive*	*0.72*
Construct			
a. Self-Esteem based on Self-values	*Self-value, Self-Esteem Scale*	*Positive*	*0.65*
b. Anxiety	*Sinha's Manifest Anxiety Scale*	*Negative*	*-0.58*
c. Ego Strength	*Thomas & Zander's Ego Strength Scale*	*Positive*	*0.76*
d. Social Desirability	*Crowne & Marlow's Social Desirability Scale*	*Negative*	*0.38*

VALIDATION OF SESW THROUGH CASE STUDIES.

a. Inter-rater reliability

The percentage of consensus between three raters on six case studies was 92.14%.

b. The t-test between scores derived from Rating I (through direct administration of SESW) and Rating II (based on case studies) was non-significant (t value = 0.17, ns).

The frequency of discrepancies between the two ratings revealed a range of 0-5 discrepancies in 15 of the 18 case study ratings and a range of 6-10 discrepancies in the remaining three case studies. This information, along with the non-significant 't' value, indicates that the self-esteem scores derived from direct administration of the SESW compare very well with the self-esteem scores derived from the ratings made on the basis of the information provided by the case studies. The assessment of self-esteem through the two techniques/methods, i.e., the rating scale and the case study, thus provide corresponding information regarding individuals' self-esteem. This offers considerable support to the cross-validity of the SESW.

FACTORS INFLUENCING SELF-ESTEEM IN WOMEN.

The following factors influencing self-esteem were revealed through the case studies of more than 50% of the women:

1. Childhood experiences.
2. Feedback from significant others (e.g., parents, husband, in-laws, friends, teachers).
3. Marital life experiences.
4. Specific achievements (e.g., education).
5. Financial status of family.

INFLUENCE OF SELECTED SOCIOECONOMIC AND DEMOGRAPHIC VARIABLES ON SELF-ESTEEM IN WOMEN.

1. Oneway Anovas were computed to examine the influence of the specific variables of education, employment, income, and age on women's self-esteem. All the four Anovas were significant, thereby indicating the significant influence of these factors on women's self-esteem.
2. Comparison of the mean self-esteem scores of women having or not having male children revealed a non-significant 't' value.
3. The t-test of the mean self-esteem scores of women who were satisfied or dissatisfied with their children's achievements was significant (t value = 3.69, $p<.01$).

The present study primarily aimed to revalidate and thereby strengthen the Self-Esteem Scale for Women (SESW). Two different techniques, viz., rating scale and case study, were used to compare the self-esteem scores of women. The results provided substantive support to the cross-validation of the SESW. Further, the high test-retest reliability and internal consistency coefficients endorse the reliability of the tool.

STUDY II

Assessment of Self-Esteem in Rural and Tribal Settings

(Shobha Nandwana, Rajasthan Agricultural University, Udaipur,
Rajasthan.)

The study was designed to test the feasibility of the Self-Esteem Scale for Women (SESW) in rural and tribal settings, and if necessary, develop an alternate assessment measure of self-esteem that is viable in these settings. Furthermore, since a construct such as self-esteem is likely to be influenced by the experiences emanating from the particular cultural setting, it became necessary to examine the sociocultural milieu of rural and tribal women. This would (i) provide insight into the factors within these settings that are associated with self-esteem, and thereby (ii) facilitate in determining the dimensions of the proposed alternate assessment measure of self-esteem.

OBJECTIVES

1. To tap the sources or antecedents and manifestations of self-esteem in rural and tribal women in Rajasthan.

2. To develop an alternate measure to assess self-esteem in rural and tribal women in Rajasthan.

PILOT STUDY 1

At the outset, a pilot study was conducted with the aim of testing the feasibility of the SESW with rural and tribal women. Ten rural and ten tribal women in the age range of 18-32 years were identified. None of the women had been exposed to any formal education. The SESW was implemented and the experience revealed that the tool in its present form was not applicable with this group mainly on account of unfamiliarity with responding to a rating scale type of measure and language. Thus, the need for developing an alternate measure was established.

The study is described in two parts, corresponding to the two main objectives.

OBJECTIVE 1

To tap the sources or antecedents and manifestations of self-esteem in rural and tribal women in Rajasthan.

SAMPLE

A sample of 40 women (20 rural and 20 tribal) was selected from two development blocks of Udaipur, namely, Badgaon and Girwa.The sampling design was as follows:

Blocks

Badgaon		*Girwa*	
Rural Villages	*Tribal Villages*	*Rural Villages*	*Tribal Villages*
n= 10	*n=10*	*n =10*	*n = 10*

Total N=40

Criteria for selection of the blocks and villages :

1. *Easy access from Udaipur city.*
2. *Link between the Home Science College in Udaipur and the villages already established.*
3. *Availability of relevant information through secondary sources.*

TOOL

Case study: *Guidelines were developed to conduct case studies of the women. The major aspects covered were individuals life experiences across different stages (childhood, adolescence, adulthood) and major events (e.g., education, marriage, employment); aspirations and achievements; and reflections on one's own self.*

PILOT STUDY 2

This pilot study aimed to test (i) the feasibility of the case study as an approach to examine the factors associated with self - esteem and the manifestations of self esteem in rural and tribal women, and (ii) the adequacy of the guidelines developed. Five women (two rural and three tribal) were informally interviewed on the aspects included in the guidelines. The study revealed the suitability of the case study approach and indicated the need to include certain additional aspects in the guidelines that would throw more light on the dimensions of self-esteem. The guidelines were revised accordingly and finalized.

ANALYSIS

1. *The case studies were thoroughly scrutinized and the sources and manifestations along with the corresponding illustrations of the same were culled out. The investigator individually examined each case study 12-15 times. Also, one round of analysis was conducted jointly with three other investigators. This was mainly done to establish inter-coder reliability.*
2. *The frequency of indication of each source was noted separately for rural and tribal women.*
3. *Next, the manifestations reflected in each source along with the specific illustrations were culled out and a comprehensive set of the source, manifestations and their corresponding illustrations was prepared.*

RESULTS

First, the sources of self-esteem in rural and tribal women are presented separately. Next, some exemplars of each source, its manifestation(s) and specific illustration(s) are presented. It is important to note here that a single source may elicit positive or negative manifestations of self-esteem.

Table 1
Sources of Self-Esteem in Rural Women

Sr.No.	Sources	Frequency n=20
1.	Gender role adoption	12
2.	High caste	6
3.	Lack of resources	
	a. Poverty and hard life	5
	b. Absence of school experience	6
4.	Marriage and family relations	
	Feedback from significant others	
	a. Husband	16
	b. Relatives	
5.	Knowledge regarding special skills/social practices	4
6.	Personal attributes	
	a. Intelligence	4
	b. Ability to complete a task	15
7.	Drudgery	6

Table 1 indicates feedback from the husband and close relatives as a source revealed by a significant number of women. This clearly points to the influence of significant others in the formation of women's self-esteem. Gender role adoption, i.e., taking on the characteristics, preferences and behaviors defined by the culture as appropriate for one's gender, emerges as another important source. The manifestations of this source were both positive and negative, i.e., deriving pleasure and satisfaction from one's biological role as woman or finding one's role as woman too restrictive. The ability to complete routine tasks is another source from which majority of the women derive self-esteem.

Table 2
Sources of Self-Esteem in Tribal Women

Sr.No.	Sources	Frequency n=20
1.	Childhood experiences	
	a. Loved by parents	20
	b. Gender discrimination	8
2.	Poverty	
	a. Scarcity of food and lack of housing	4
	b. Unavailability of wage work	4
3.	Excessive work burden	10
4.	Social perscriptions/restrictions	7
5.	Knowledge of special skills (e.g.,tailoring, soap making)	4

6.	*Barrenness*	*4*
7.	*Marriage and family life experiences*	
	a. Ill-treatment by husband/frequent conflicts with husband	*7*
	b. Relationship with in-laws and relatives	*18*

Childhood experiences and relationship with in-laws and relatives as sources of self-esteem were reflected by majority of the tribal women. The former is a source that has been stressed by many self-esteem research scholars (e.g., Coopersmith, 1967; Hamachek,1971). As in the case of rural women, relationship with significant others has emerged as an important source of self-esteem in tribal women as well. Excessive work burden has been indicated in ten case studies. Generally, hard work is the part and parcel of the life of a tribal woman. Not surprisingly, therefore, this source resulted in negative manifestations of frustration and inability to cope with the day to day demands. Along the same lines, poverty in terms of scarcity of food and housing, and unavailability of wage work was revealed in a significant number of case studies.

SOME EXEMPLARS OF SOURCES OF SELF-ESTEEM, THEIR MANIFESTATIONS, AND RELATED ILLUSTRATIONS.

Tables 3 and 4 present some exemplars of self-esteem in rural and tribal women along with their positive or negative manifestations and related illustrations. In rural women the source of gender role adoption and interactions/relationship with significant others, indicate both positive and negative manifestations. For example, as revealed in Table 3, gender role adoption results in two types of manifestations. The positive manifestation is that one likes to be a woman because she is able to give birth. On the other hand, the experience of feeling restricted in one's role as woman because she cannot go to school or go out to earn is indicated as a negative manifestation. Interestingly, absence of school experience was a source leading to feelings of helplessness in rural women.

In the case of tribal women (Table 4), it is interesting to note that while poverty is found to indicate feelings of despair and helplessness, it also manifests itself positively in terms of the ability to cope well with the situation, for example, borrowing groceries or buying on credit when there is scarcity of food. Furthermore, though barrenness is one source that results in many negative manifestations, it is heartening to note an instance of a women coping with the situation by channelizing her energies into working at the Anganwadi in the village.

To summarize, scarcity or lack of resources, excessive work burden and drudgery, relationships within the family, and knowledge of special skills, have emerged as the sources of self-esteem that are common to both rural and tribal women. Barrenness as a source was revealed by the tribal women whereas the experience of belonging to a high caste was reflected in the rural women. The latter is not surprising since the caste hierarchy is virtually absent in tribal settings. As noted earlier, many sources indicated both positive and negative

Table 3

Sources, Manifestation and Illustrations of Self-Esteem as Reflected in the Rural Women's Case Studies

Source	*Manifestation*	*Illustration*
Gender Role Adoption	*Positive* *Likes to be a woman*	*Women can give birth, which is God's gift. Men cannot do this. I am proud of it.*
	Negative *Feels discriminated.* *Finds her role as woman restrictive*	*If I were a boy, I could have gone to school, gone out to work and earn money.*
Marriage and Family		
a. Husband's behaviour	*Negative* *Feeling of being ignored.*	*Husband never takes my opinion, he always consults his mother. I feel bad about it.*
	Feeling of despair	*When my husband talks ill of me, I feel like running away from society. He does not look after the family and beats me.*
	Positive *Feels good/happy*	*Husband praises me when I cook well and complete a task quickly.*
	Feel important	*Husband praises me when I joke around and make others happy.*
	Initiative to improve her situation	*Husband beat me a lot and has kept another woman. I left him. Now if I meet someone with a 'good character, I will get married, otherwise remain single.*
b. Relatives	*Negative* *Feels depressed*	*In-laws ill-treat me and accuse me about sending money to my parents. My husband also takes their side.*

Table 4

Sources, Manifestations and Illustrations of Self-Esteem as Reflected in the Tribal Women's Case Studies

Source	Manifestation	Illustration
Poverty in terms of		
Scarcity of food, housing	Negative Feeling of despair	At times she is fed up with herself, so much so that she feels like running away from the society as her husband does not allow her to work, does not take care of her and does not provide her a house.
	Positive Copes well	When there is nothing to eat in the house she does not worry, she gets the required items on credit and returns when she has money in her hand.
		When there is nothing to eat in the house she goes and gets some wheat flour from her mother-in-law and returns it when she gets some, as children cannot remain hungry.
Barrenness	Negative Feels despair	Sometimes she thinks that she is of no use and there are such a lot of hardships and why she is alive. But it is not easy to die. So she is living for others, as she has no children.
	Feels insecure	For future problems she is worried that some day her husband might bring another female and would throw her out of the house, then what would happen of her?
	Gets negative feedback from significant others	Most of the time she thinks if she will not have a child who will look after her in old age, and thus cries.

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Feels anxious	*Women folk have many troubles. She has to look after everyone, do all work and then if she cannot bear a child, listen to sarcastic remarks, and husband also fights.*
Positive Copes with her problem	*Inspite of not having a child she does not feel that her life would be spent "like that only" and she would not be able to do any thing. She has such a lot of work to do and she also works at Anganwadi centre and has learnt soap making.*

manifestations which were probably determined by the larger sociocultural milieu as well as specific familial and life experiences. For instance, the relationship with the husband and in-laws resulted in positive feelings if the woman was liked, respected and considered important. On the other hand, feelings of helplessness from the same source were elicited in a situation where the husband drank a lot and beat the woman regularly.

OBJECTIVE 2

To develop an alternate measure to assess self-esteem in rural and tribal women.

The pilot study 1 had revealed the non-feasibility of the SESW in rural and tribal settings and indicated the need for an alternate measure of self-esteem. Given the difficulties encountered on account of using a rating scale technique and the feasibility of the case study approach, it was decided to develop a semi-projective type of interview schedule consisting of different situations which are familiar to the rural and/or tribal women. Such a technique, it was felt, would 'concretize' the measure which would facilitate responding and also provide greater flexibility in implementation.

Two major sources provided information on the basis of which the semi-projective measure is to be developed.

1. *The case studies provided insight into the sociocultural milieu and the sources and manifestations of self-esteem in rural and tribal women.*
2. *Interviews with selected 'women in development' workers provided information on the characteristics of rural and tribal women with high and low self-esteem.*

SAMPLE AND PROCEDURE OF INTERVIEW

1. *Three 'women in development' workers from Udaipur and Jaipur cities in Rajasthan were identified. All three women have 10 to 15 years experience in organizing women's groups in rural and tribal areas.*
2. *First, the meaning of self-esteem was discussed to ensure common understanding of the concept on part of the investigator and the development workers. Next, they were asked to identify five women with high self-esteem and five women with low self-esteem from amongst the women's groups in which the workers were involved. Along with the identification of a particular woman as having high or low self-esteem, the workers were also asked to provide reasons for their classification, along with a brief life history of each woman.*
3. *The characteristics/descriptions that emerged were meaningfully sorted to arrive at two sets of characteristics: one set descriptive of women with high self-esteem and the other set describing women with low self-esteem.*

Tables 5 and 6 consist of the two sets of characteristics. The characteristics of women with high self-esteem are broadly classified into personal dimensions (e.g., courageous, persevering, energetic) and behavioral dimensions (e.g., able to motivate other women, can interact well with village level government officials). Women identified as having low self-esteem were found to be passive, pathetic in appearance, lacking confidence, unable to solve one's own problems and unable to raise relevant issues within their group (Table 6).

It is envisaged that the semi-projective measure that is to be developed in the near future will be administered to the ten women identified by the development workers. The assessment of self-esteem obtained through this will be compared with the judgements already made by the workers. This procedure would enable preliminary validation of the new measure developed.

Table 5
Characteristics of Women with High Self-Esteem as Reported by Three Women's Development Workers.

Personal descriptions/dimensions

1. Handles problems successfully
2. Self-confident
3. Possesses analytical skills
4. Determined
5. Outspoken
6. Organizational ability
7. Good grasping power
8. Courageous
9. Loving and concerned
10. Progressive
11. Persevering
12. Innovative
13. Aware of her good looks
14. Energetic
15. Coping ability
16. Mentally alert, bright and intelligent
17. Efficient

Behavioral descriptions/dimensions

18. Completed adult literacy course
19. Able to motivate others
20. Can address very large gatherings extempore on issues related to women
21. Able to assume leadership
22. Has broken many caste barriers
23. Likes to learn new things
24. Can interact well with village level officers of government
25. Able to take up women's issues

26. Can communicate well
27. Ability to convince others
28. Has special skills e.g., singing, cycling
29. Able to express her opinion in public

Table 6
Characteristics of Women with Low Self Esteem as Reported by Three Women's Development Workers.

Personal description & dimensions

1. Does not speak up
2. Poor grasping power
3. Has no guts/courage
4. Pathetic appearance
5. Unable to solve her own problems
6. Unable to assert opinion
7. Passive
8. Lacks confidence

Behavioral descriptions/dimensions

9. Has no say in the Jati panchyat
10. Not able to raise any women's issues
11. Avoids major responsibilities (with special reference to meetings of women's groups)

The study has provided insight into the sources or antecedents of rural and tribal women's self-esteem as well as their positive and negative manifestations. From the perspective of women's development/empowerment, such information is very useful as it provides a concrete handle on the specific dimensions of women's self-esteem, which in turn would contribute towards planning specific inputs into the process of instilling a 'new' sense of self-worth in women.

CONCLUDING COMMENTS

The assessment of a vital concept such as self-esteem is an intricate process. Over and above the initial accomplishment of the standard psychometric requirements of reliability and validity, it is important to continue efforts to further refine the measure in order to expand its scope to different groups of individuals in different settings. Further, in devising methods of establishing reliability and validity, it is important that researchers allow for a certain flexibility and creativity in the process which may not necessarily result in neat coefficients, yet take us one concrete step closer to the sociocultural reality of the group under consideration.

Knowledge regarding the factors involved in the development of self-esteem and the way it is manifested is important, not only for defining the framework of measurement, but also for steering programs for women's development/empowerment. At the outset of the report, the significance of self-esteem for women's empowerment was emphasized. In consonance with the 'new visions of development' programs for empowerment of women are focusing on regenerating a sense of self-worth/self-esteem in women, by inculcating a new consciousness that questions the existing structures and allows them to develop and exercise autonomy in determining choices in life. Such a process will enable women to influence the direction of social change and thereby eliminate the "persistent inequalities" (Tinker, 1990, p. 53) that are the major concern of the field of women in development.

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AT THE CROSSROADS : TIME-USE BY UNIVERSITY STUDENTS

Participant : Suman Verma

Project Guide : T.S.Saraswathi

ABSTRACT

Time-use data of 130 postgraduate students was obtained to (a) compare and evaluate the three methods for time use studies namely, 24-hour concurrent record (diary), 24-hour global recall (diary) and 24-hour global recall (interview); (b) develop a profile of time use of the youth with reference to activities, locations, companions and feelings; and (c) compare time use of boys and girls from arts, science and professional faculties on a college day, Sunday and pre-examination day. Methodological comparisons revealed high consistency between the three methods on time use.

Differences when analyzed revealed that the 24 hour concurrent record (diary) elicits qualitatively more accurate data on time use when compared to the global recall methods. A profile of the time use gives details about the activities the youth do, with whom they spend their time, where do they spend their time, with accompanying subjective experiences. Differences were observed in time use by students in different programs of study; subjective experiences differed in girls and boys; and variations in time use were pronounced on a college day and pre-examination day as compared to a Sunday. The study has implications for programme planners for youth.

INTRODUCTION

Time use research aims at studying the arrangement of peoples' activities in a temporal frame of reference, the temporal order, structure of daily life experiences and the time related aspects of social behaviour. A time use record consists of a log, diary or protocol that lists the sequence, duration and timing of the activities an individual has performed over a specified duration of time. Numerous such records from members of a population help to analyze main trends and group differences in the allocation of time to various activities, and also to plan strategies for (a) intervention in management of time use; and (b) interventions that involve use of time in any given population.

The conclusion from various studies (Juster, 1985; Robinson, 1977; Saraswathi & Sridharan, 1991) is that some form of diary instrument that records the chronology of various time uses over the day is the only valid measurement of time use, and less expensive substitutes are of substantially lower quality and have systematic biases of a major sort. In the present study this diary method called the 24 hours concurrent record (diary) was compared with the 24 hour global recall (diary) and 24-hour global recall (interview) to evolve a more viable method or combination of methods in terms of time, cost and energy for collecting data on time use.

Youth is a period of transition between adolescence and adulthood and is constantly under the pressure of various personal and social demands. The aim of the present study was to get a comprehensive picture of how the youth learn to respond to daily situations, master interactions with parents, achieve harmony with friends, learn to handle the pressures of college and develop means to transcend daily life conflicts. Another objective of the study was to understand life experiences of the youth with respect to their activities, where they go, with whom they relate and the feelings they experience. The focus on the time use of youth is geared toward understanding their needs and interests with the belief that such an understanding will help in effective programme planning for them.

SPECIFIC OBJECTIVES OF THE STUDY.

1. To compare and evaluate the three methods namely, 24-hours concurrent record (Diary), 24-hours global recall (diary) and 24-hour global recall (interview).
2. To study the time use of the youth in institutions of higher education with reference to (a) type of day (college day, Sunday, pre-examination day); (b) program of study (arts, science, professional); (c) gender; (d) residence (dayscholars, hostelites); (e) affective tone associated with varied daily experiences.

METHOD

PILOT STUDY.

A pilot study was conducted with 28 postgraduate subjects to (a) acquaint the investigators with the techniques, (b) test applicability of the tools used, and (c) establish inter-interviewer and inter-coder reliability.

Modifications were made in the diary form based on the pilot work such as (a) introduction of an excercise in filling the diary form; (b) addition of a column on thoughts associated with each activity; (c) definition of key terms; (d) addition of a follow-up interview based on questions and clarifications in the diary record; (e) inclusion of a five point rating scale to study the level of motivation while doing an activity, and (f) inclusion of a three-day emotion graph to study fluctuations in the intensity of feelings at different times of the day for three consecutive days.

SAMPLING DESIGN.

The sample comprised of 130 postgraduate students, both boys and girls in the age range of 20-23 years, selected purposively from the Arts, Science and Professional Programs of study, in Punjab University, Chandigarh.

To arrive at a generally applicable methodology for time-use research, 40 respondents were administered the three methods for collecting data on time use namely, 24-hour concurrent record (diary), 24-hour global recall (diary) and 24-hour global recall (interview). These repondents also maintained a three-day emotion graph for three consecutive days. The remaining 90 respondents were given the diary form which they maintained for three different days namely, a college day, a Sunday and a day one month prior to the final examination, henceforth called a pre-examination day. A schematic representation of the sampling design is shown in Figure.1.

TOOLS.

1. **24-hour concurrent record (diary).** The basic format of the diary form was the one evolved by Saraswathi and Sridharan (1991). It consisted of detailed instructions to elicit information on the activities involved, locations, persons present, feeling experienced, accompanying thoughts and the motivation for the particular activity. The diary form was followed by an interview on the consecutive day to probe systematically into the information filled, seek clarifications on ambiguities and check for incomplete data.
2. **24-hour global recall (diary).** The respondents recalled what they considered to be an average college day and filled in the diary with the same format as in the concurrent record method, eliciting information on time use for five categories namely, activities, locations, persons present, feelings and motivation. The difference between the first two methods was that the respondents in the case of the concurrent record had to maintain the diary for a college day and fill it once in every one hour, while in the global recall (diary) they recalled an average college day and could fill it at a stretch. Once the respondents filled the diary form they were interviewed the following day to probe and clarify details filled in the diary form.
3. **24-hours global recall (interview).** Respondents recalled an average college day as in the case of global recall by diary but the information was obtained from the respondents through an interview based on the same format of the diary.
4. **Three-day emotion graph.** It was used to study the intensity and fluctuations in feelings of the respondents who maintained the graph for three consecutive days. Respondents

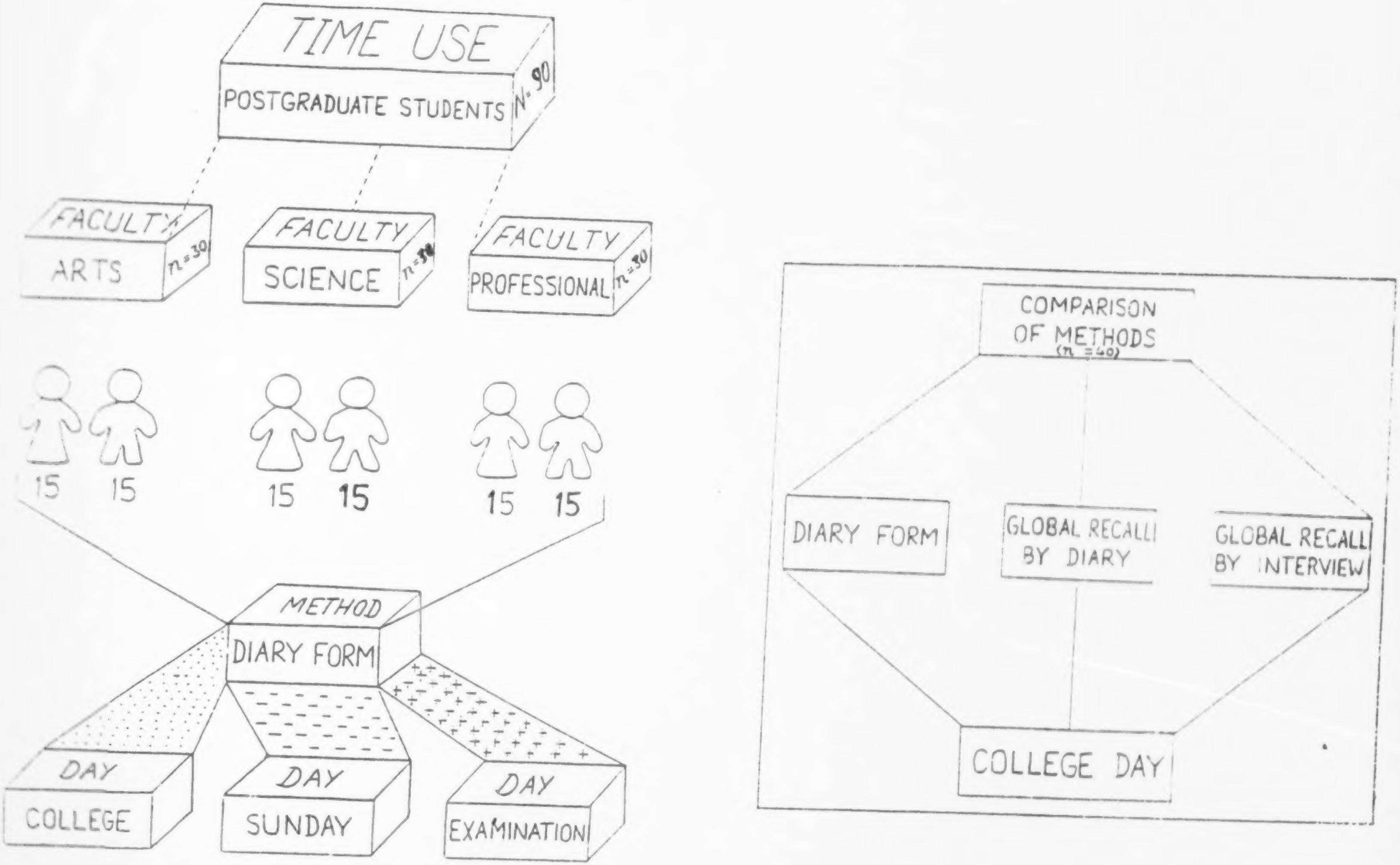
TIME USE
POSTGRADUATE STUDENTS
N=90
FACULTY
ARTS
n=30
FACULTY
SCIENCE
n=30
FACULTY
PROFESSIONAL
n=30
15
15
15
15
15
15
METHOD
DIARY FORM
DAY
COLLEGE
DAY
SUNDAY
DAY
EXAMINATION
COMPARISON OF METHODS
(n =40)
DIARY FORM
GLOBAL RECALL BY DIARY
GLOBAL RECALL BY INTERVIEW
COLLEGE DAY

Figure 1 : Schematic representation of the research design and sample framework

indicated the intensity of their feelings on a five-point rating scale (low to high) and plotted it on the graph for the feelings experienced at different times of a day, for three consecutive days.

PROCEDURE

The investigators met the students in their classes, and explained the significance of the study. Respondents who agreed to cooperate and participate in the study were selected. A normal college day, defined as a routine college day during the academic session, was identified individually with each student. Respondents were contacted (on Day 1) and were given a trial exercise to fill the diary form. They maintained the diary for the next day (Day 2) and were then interviewed on the consecutive day (Day 3) to clarify ambiguities in the information filled in the diary form.

Data was obtained from 40 respondents on time use on a normal college day using the concurrent record (diary) and the two global recall methods. Time gap between filling the diary using each of the three methods, was 15 to 30 days. The other 90 respondents filled the diary for the three days namely, college day, Sunday and pre-examination day using the concurrent record (diary) method with a time gap ranging from 30 to 45 days between each diary.

Coding Procedure

Coding of the primary activities was done by assigning codes to the categories and subcategories of activities, locations, persons present, feelings and motivation into mutually exclusive categories.

RESULTS

Time use of the youth was studied with respect to the categories of activities the youth do, locations where youth spend their time, persons with whom they spend their time and the subjective experiences of associated feelings and the level of motivation while doing an activity. The data obtained for the category of motivation was not found to be satisfactory, hence results pertaining to that category are not presented in this paper.

METHODOLOGICAL COMPARISONS

The three methods used for data collection on time use for methodological comparison were : the 24-hours concurrent record (diary), 24-hour global recall (diary) and 24-hour global recall (interview). Mean values of the reported time spent by students as obtained by the three methods are given in Figure 2. As evident from the figure, on the whole the three methods yield about the same distribution of time to various categories with greater correspondence in reported time through the two global recall methods when compared to the concurrent record (diary).

Correlation values were calculated to study the reliability and internal consistency of the data as obtained by the three methods. As evident from Table 1 there is high internal

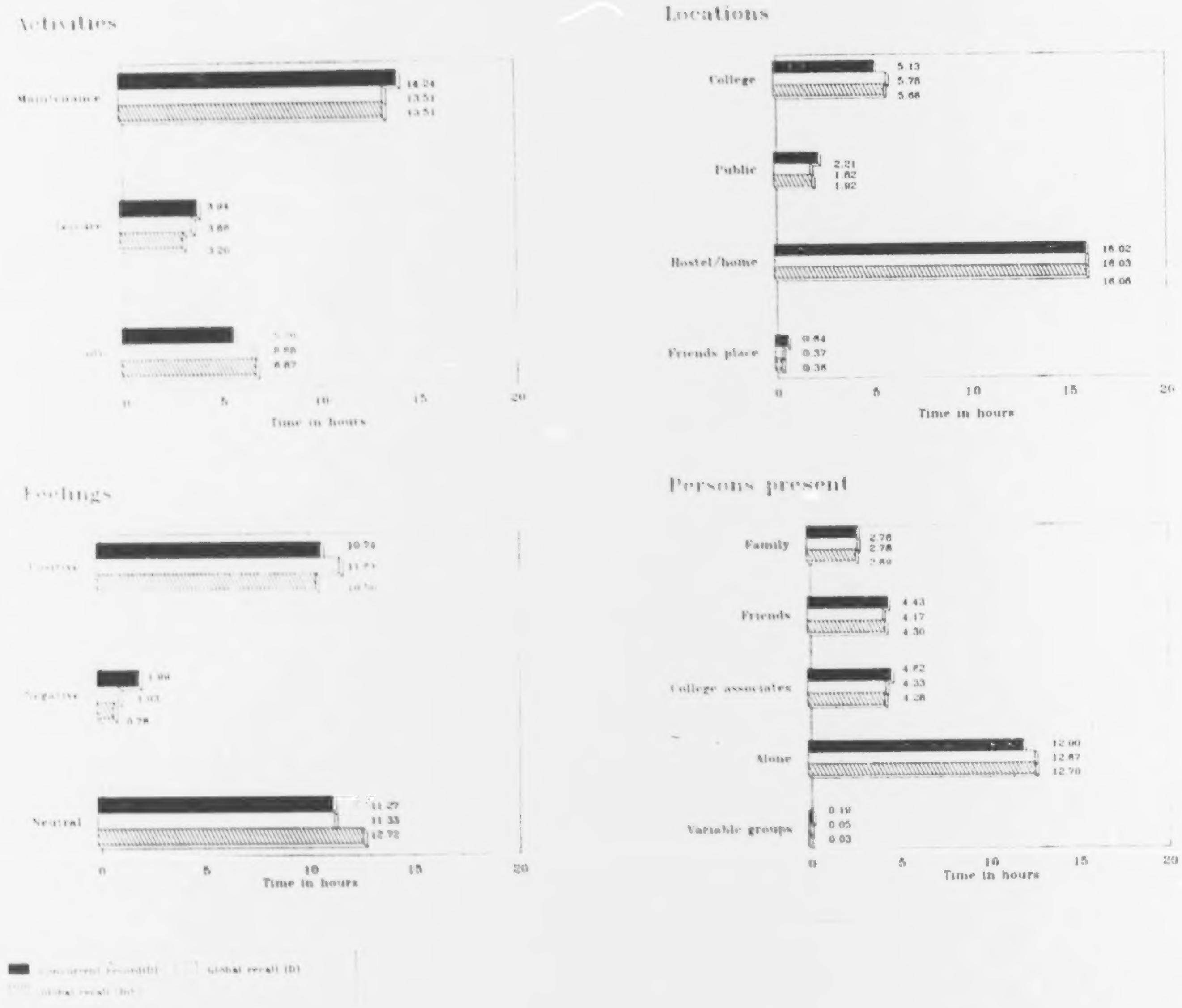

Figure 2 Mean comparison of time use data obtained from university students using three different methods (n = 40)

Table 1

Correlation Co-Efficients (Pearson's(r) of Time Use Data Obtained Through 24-Hour Concurrent Record (Diary), 24-Hour Global Recall (Diary) and 24-Hour Global Recall (Interview) with n=40.

Categories	24-hour concurrent record(diary) AND 24-hour global recall (dairy)	24-hour global recall (dairy) AND 24-hour global recall (interview)	24-hour concurrant record(dairy) AND 24-hour global recall (interview)
Activities			
Maintenance	.42	.85*	.45
Leisure	.39	.95*	.32
Study	.61	.95*	.68
Location			
College	.61	.80*	.74
Public	.68	.90*	.67
Hostel/Home	.72	.85*	.82*
Friends' Place	.66	.83*	.59
Persons around			
Family	.55	.99*	.54
Friends	.79	.79	.85*
College associates-	.68	.90*	.71
Alone	.38	.88*	.40
Variable group	.71	.76	.30
Feelings			
Positive	.58	95*	.62
Negative	.56	88*	57
Neutral	61	94*	.64

Note : * Correlation values only above .80 considered significant for method consensus.

consistency between time use as reported by respondents using the two global recall methods; however, when concurrent record (diary) is compared, correlation values though statistically significant are lower than that obtained between the global recall methods.

ANOVA for correlated means was computed (See Table 2) to study differences in the data obtained for the different categories. Statistically marginal differences were obtained between the three methods for time reported under maintenance activities and negative feelings. Total time reported by respondents on maintenance and in experiencing negative feelings is highest by concurrent records (diary) followed by global recall (diary) and global recall (interview).

One can thus conclude that high internal consistency exists between all the three methods with greater consistency between the two global recall methods which could be accounted for as due to the similarity in the context of recall i.e., a composite picture vs a specific day's events. Concurrent records certainly yields qualitatively more accurate and detailed data when compared to the global recall methods and seems the most promising of the feasible alternatives; however, choice of the method can depend upon the specific purpose of research.

TIME USE BY UNIVERSITY STUDENTS

Repeated Measures ANOVA was computed to study the differences in the reported time use for the categories of activities, locations and persons present. The between subjects factors in each analysis were the program of study (arts, science, professional) and gender. Type of day (college, Sunday, pre-examination) was the within subjects factor. Newman Keuls test was used for post-hoc mean comparisons. Results are presented under the sections of activities, locations and persons present (See Tables 3, 4, & 5).
The major findings of the study are summarised below.

Methodological Comparisons

* *The three methods, namely, 24-hour concurrent record (diary), 24-hour global recall (diary) and 24-hour global recall (interview) yielded consistent data. (Figure 2)*

* *Among the three methods, there is greater consistency between the two global recall methods both of which call for a composite picture of an 'average' day.*

* *Concurrent record by diary yield qualitatively more accurate and detailed data when compared to global recall.*

What Youth do with Their Time (Reference : 24 hours/day)

* *Youth spend 5.93 hours of their non-sleep time in maintenance activities such as personal care, household chores, eating, idling, thinking and commuting apart from 8.46* hrs *in sleep.*

* *For approximately 4 hours, students engage in recreational activities such as television viewing, socializing, listening to music. (Figure 3)*

* *Secondary activities like listening to music, munching snacks, talking, drinking tea/*

Table 2

ANOVA for Correlated Means for Data Obtained Through 24-Hour Concurrent Record (Diary), 24-Hour Global Recall (Diary) and 24-Hour Global Recall (Interview) with n = 40.

Categories	*F-value*	
Activities		
Maintenance	*4.27**	
Leisure	*0.36*	*NS*
Study	*2.66*	*NS*
Location		
College	*0.99*	*NS*
Public	*0.997*	*NS*
Hostel/Home	*0.002*	*NS*
Friends' Place	*1.94*	*NS*
Persons around		
Family	*0.04*	*NS*
Friends	*0.07*	*NS*
College associates	*0.53*	*NS*
Alone	*0.50*	*NS*
Variable group	*1.99*	*NS*
Feelings		
Positive	*0.60*	*NS*
Negative	*4.44**	
Neutral	*.57*	*NS*

*$p<0.05$

Table 3

Repeated Measures ANOVA of Time Spent on Activities by Youth from Three Faculties[a] on Three Different Days[b] During the Academic Session (n-90).

Source of variation	*df*	*F-value Maintenance*	*F-value Leisure*	*F-value Study*
Between subjects	*89*			
Faculty	*2*	*3.560**	*5.269**	*15.921***
Gender	*1*	*0.202*	*0.048*	*0.607*
Faculty x Gender	*2*	*1.436*	*1.223*	*0.050*
Subjects w. groups	*84*			
Within subjects	*180*			
Day	*2*	*36.559***	*151.324***	*175.001***
Faculty x Day	*4*	*1.161*	*1.359*	*3.205**
Gender x Day	*2*	*0.096*	*0.366*	*0.063*
Faculty x Gender x Day	*4*	*1.425*	*1.411*	*0.512*
Day x Subjects w. Groups	*168*			

Note : * $p < 0.05$ ** $P<0.01$

a Arts, Science and Professional programs.

b College day, Sunday and pre-examination day.

Table 4

Repeated Measures ANOVA of Time Spent in Different Locations by Youth From Arts, Science and Professional Programs on a College Day, Sunday, Pre-Examination Day During the Academic Session (n = 90).

Source of variation	*df*	*F-value College*	*F-value Public Place*	*F-value Hostel/ Home*	*F-value Friends Place*
Between subjects	*89*				
Faculty	*2*	*9.448***	*0.519*	*1.663*	*3.769**
Gender	*1*	*9.971***	*26.262***	*20.20***	*1.850*
Faculty x Gender	*2*	*0.708*	*0.121.*	*1.058*	*1.286*
Subjects w. groups	*84*				
Within subjects	*180*				
Day	*2*	*192.149***	*12.282***	*73.745***	*3.250*
Faculty x Day	*4*	*9.028***	*1.480*	*2.528**	*2.213*
Gender x Day	*2*	*5.713***	*0.892*	*1.420*	*0.015*
Faculty x Gender x Day	*4*	*5.221***	*1.453*	*2.734**	*1.282*
DayxSubjects w. groups	*168*				

Note : **P < 0.05 ** P < .01*

Table 5

Repeated[a] Measures ANOVA of Time Spent[b] With Different Persons By Youth From Three Programs of Study on Three Different Days During the Academic Session (n = 90).

Source of variation	df	F-value Family members	F-value Friends associates	F-value college group	F-value Alone	F-value Variable group
Between subjects	89					
Faculty	2	4.068**	3.991*	14.502**	1.657	0.458
Gender	1	32.266**	2.865*	3.025	31.255**	0.027
Faculty x Gender	2	7.816**	4.386**	2.293	8.998**	1.231
Subjects w. groups (error between)	84					
Within subjects	180					
Day	2	8.960**	1.210**	178.620**	19.564**	0.516
Faculty x Day	4	0.150	1.084	10.665**	1.983	0.360
Gender x Day	2	0.505	0.018	1.151	1.545	1.487
Faculty x Gender x Day	4	0.274	0.593	2.363	1.183	0.780
DayxSubjects w. groups (error within)	168					

Note : * P < .05 ** P < .01

a Arts, science and professional faculties

b College day, Sunday, pre-examination day

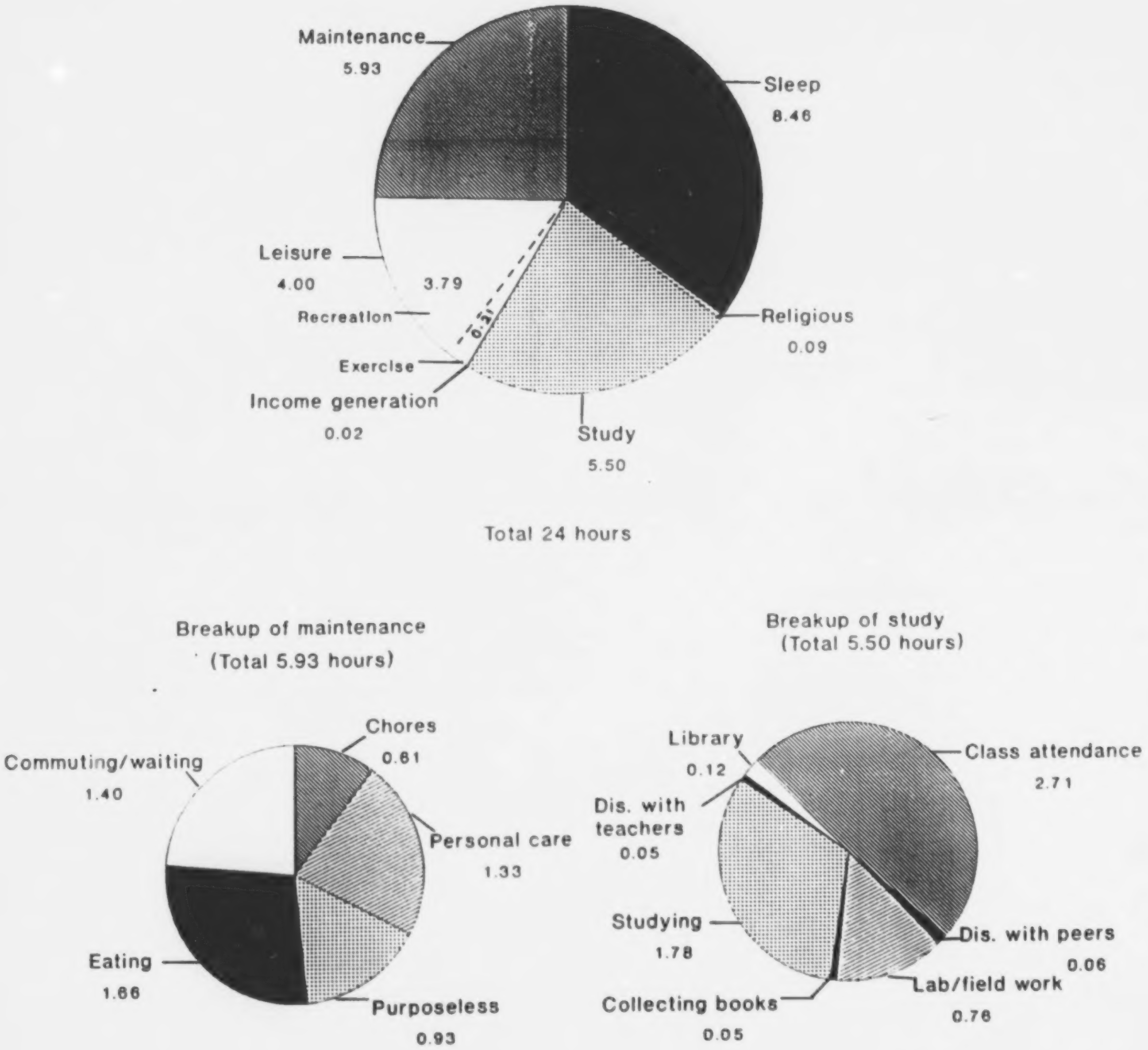

Figure 3 Activity profile of university students for a college day ($\underline{n}$ = 90)

cold drink, overlap with primary activities like cooking, cleaning, studying and leisure. Television watching as a concurrent activity is associated with household chores, eating and personal care.

Where Youth Spend Their Time

- *Two-thirds of the day is spent in the hostel or at home depending on whether the student is a hostelite or a day scholar. (Figure 4)*
- *One third of their waking time is spent in college in the classroom, library, sports ground or cafeteria.*
- *About 2.22 hours are spent at public places like shopping centres, restaurants, banks, hospital/health centre and barely 0.34 hours at friend's place.*

Whom Youth Spend Their Time With

- *Students spend 51 percent of their time alone in solitude idling, in personal grooming, reading, studying or pursuing hobbies. (Figure 5)*
- *Friends and college associates occupy 34.08 percent of their time both during and outside college hours.*
- *Only 14.42 percent of their time is spent with parents, siblings and relatives.*

How do Students from Arts, Science and Professional Faculty Programs Compare in Use of Time ?

- *Science students spend about one hour less in maintenance and leisure when compared to their arts and professional counterparts.*
- *Significant differences in study related activities exist, with science students spending seven hours which is two hours more than arts and one hour more than professional students.*
- *Science students spend almost three hours more (7.29 hours)) at college and about three hours less (14.55 hours) at their residence when compared to arts and professional students.*
- *On the whole, 50 percent of the time is spent alone by students from all the three programs of study, of the remaining time, more time is spent with friends, college associates and the least with family members.*

Gender Differences in Time Use

- *Girls spend an hour extra in household chores like cooking, washing, cleaning as compared to boys.*
- *Girls spend less time in sports and physical exercise and more time related to domestic crafts, socializing, talking to parents and watching television when compared to boys.*
- *Boys spend about an hour more at college and public places and one and a half hours less at hostel/home when compared to girls.*
- *Girls spend more than double the time with family members and boys spend more time with friends, college associates and alone.*

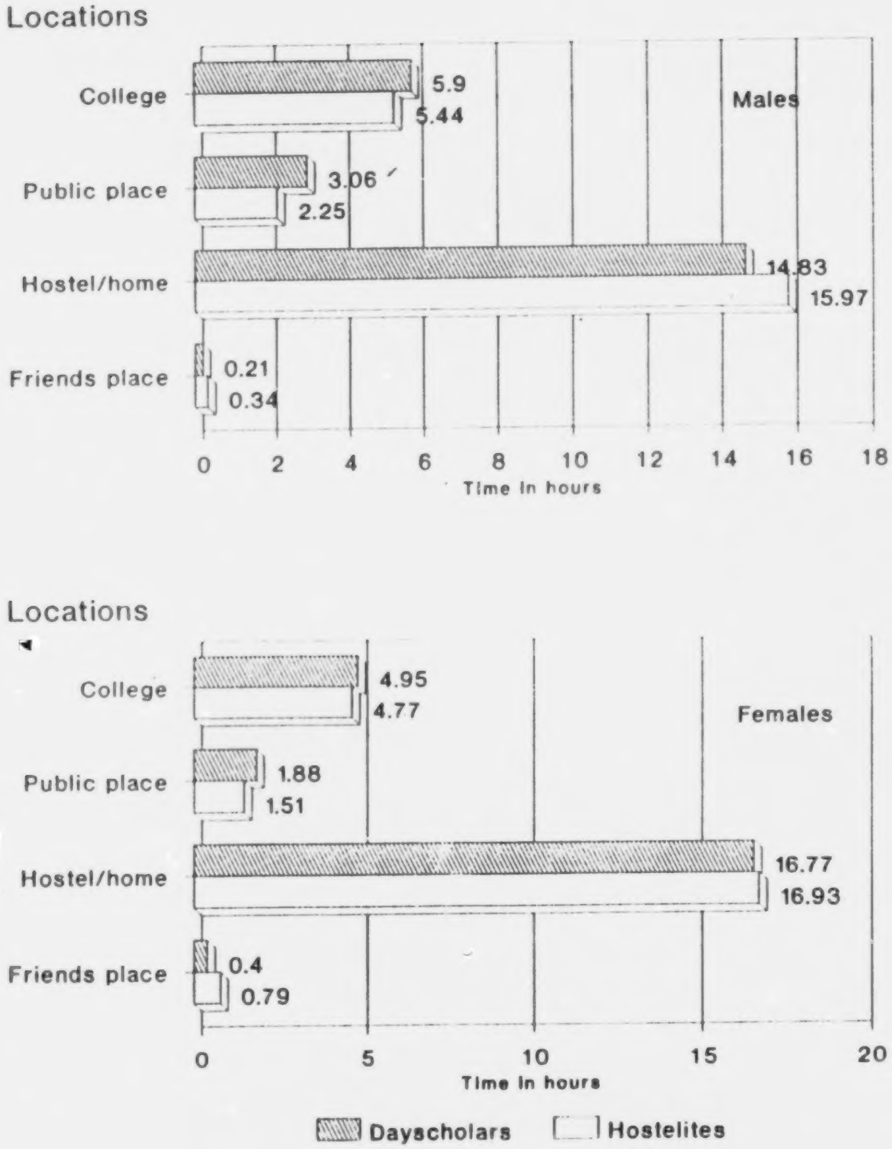

Figure 4 Where students spend their time

Note

Total time 24 hours on a college day
Dayscholars n = 34 (males), 40 (females);
Hostelites n = 31 (males), 25 (females)

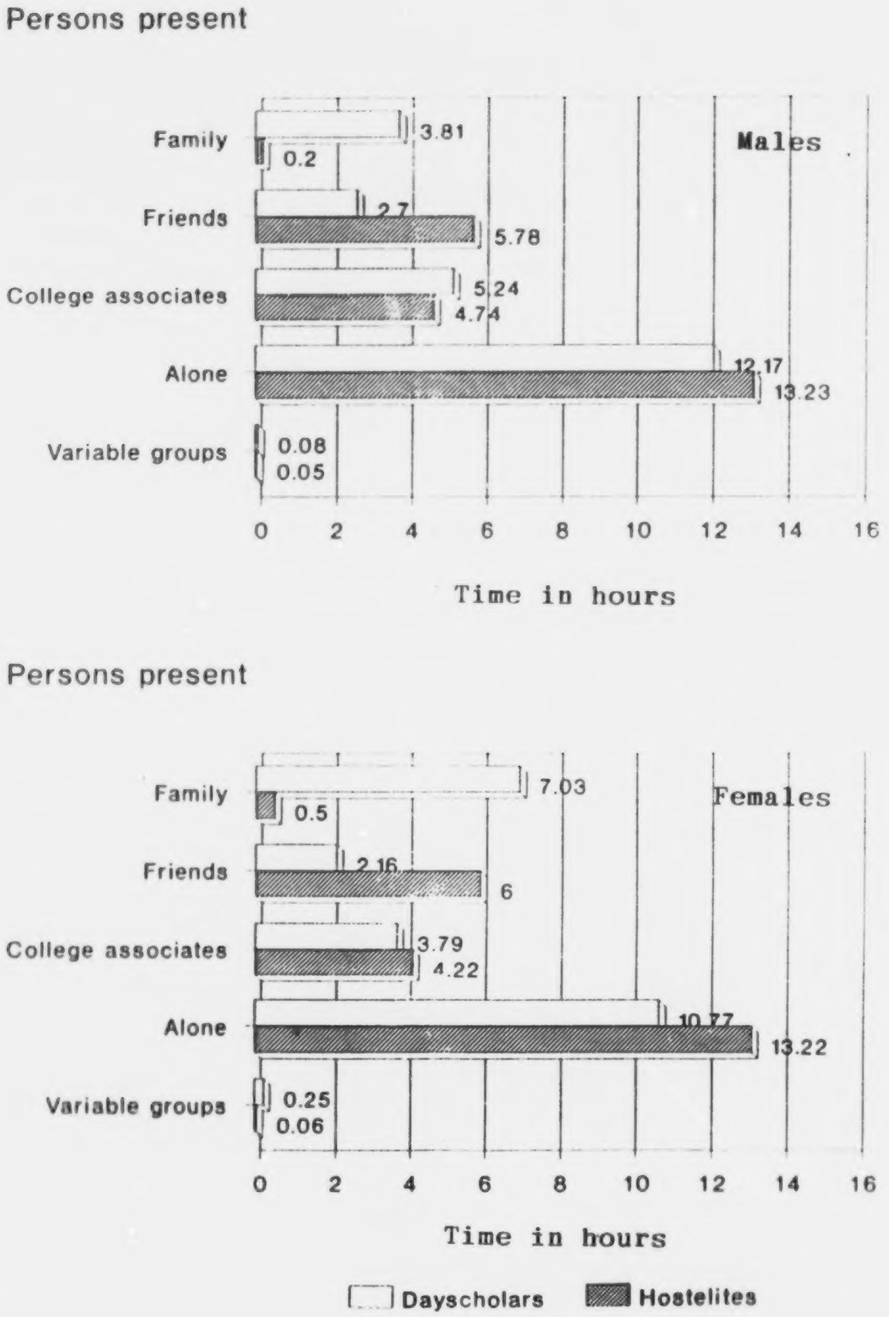

Figure 5 Persons with whom students spend their time

Note

Total time 24 hours on a college day
Dayscholars n = 34 (males), 40 (females);
Hostelites n = 31 (males), 25 (females)

Type of Day Variations in Time Use of the Youth.

* *Students spend six hours in maintenance on a college day, which is one hour more than what they spend on Sunday and two hours more than time spent on a pre-examination day.*
* *Leisure predominates on Sunday while study on a pre-examination day.*
* *Three-fourth of the time is spent at one's residence on a Sunday and pre-examination day.*
* *Time spent with family is 6 hours on a Sunday while only about half that time is spent with them on the other two days.*
* *Time spent alone studying predominates on a pre-examination day.*

Subjective Experiences. (Affective tone)

* *College students' affective tone in their daily lives is predominantly positive i.e. cheerful, happy, excited 60 percent of the time, neutral 30 percent of the time, and distinctly negative (angry, frustrated, sad) 10 percent of the total time. (Figure 6)*
* *There is a distinct rise in negative feeling tone on pre-examination days.*
* *Negative feelings show sharp fluctuations compared to the positive feelings which are more stable and less intense.*

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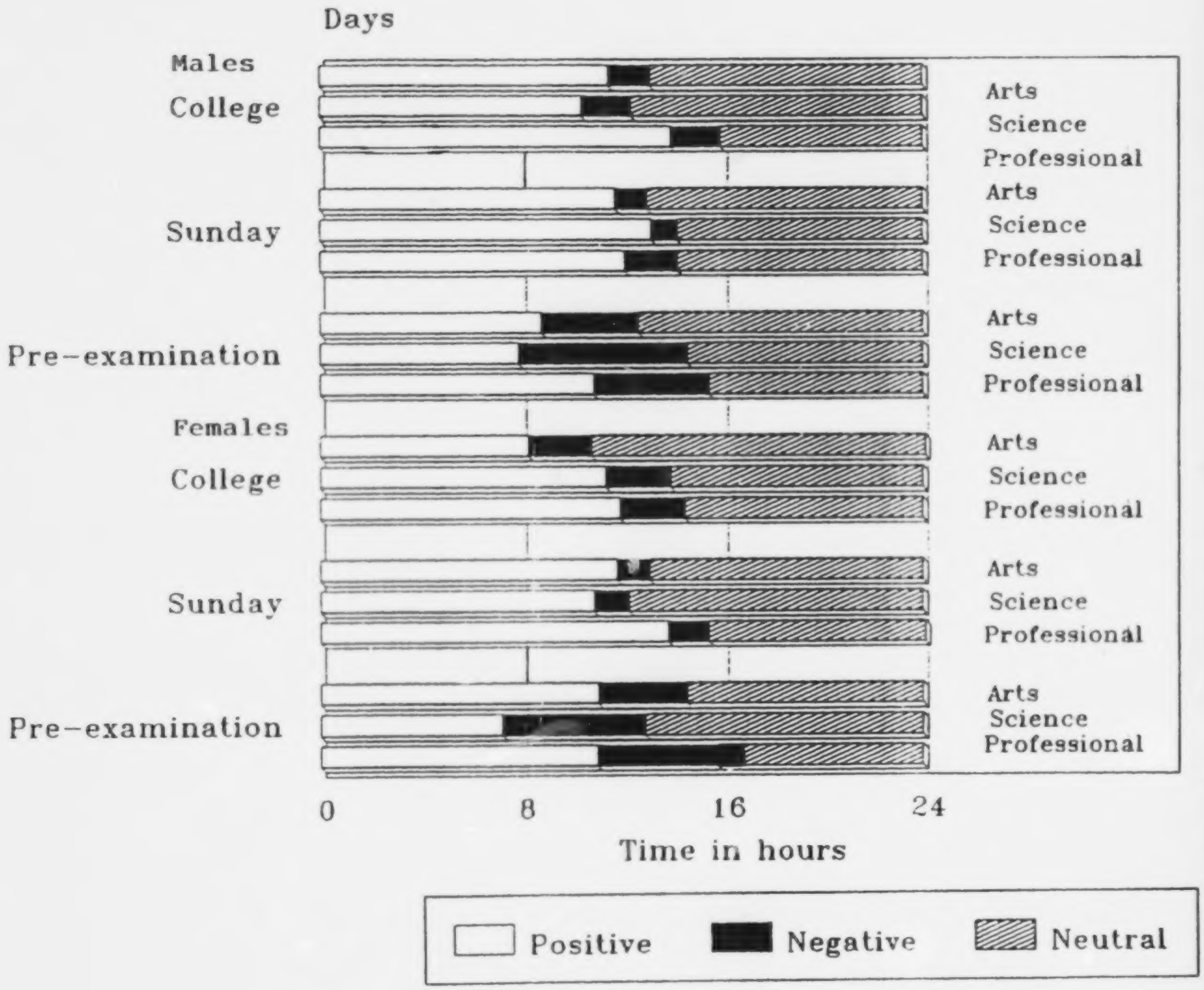

Figure 6 Shifts in feelings across three days by the students from arts, science and professional programs (n=90)

MANAGEMENT OF CHILD CARE AND INCOME GENERATION BY MOTHERS IN THREE ECO-CULTURAL SETTINGS

(PROJECT DIRECTED BY T.S. SARASWATHI)

The three research studies summarized herein were part of a collaborative project on women's work and child care management. They aimed at examining the integration of economic and child care roles by mothers from the lower socio-economic strata in varied eco-cultural settings : agrarian, nomadic and pastural, and urban slums. The first study by Gill focussed on the rural women in Ludhiana district of Punjab State, engaged in agricultural and home-based production activities. Adaptations of child care to the variations in the mother's locale and activity patterns during the peak and lean periods of agricultural activity were of particular interest. The second study by Dhingra, was conducted in the Jammu region of the Jammu & Kashmir state. The tribal population called Gujjars (cowherds), basically a nomadic group that moved between the hills and plains in search of green pastures for their herds, and their sedentary counterparts who had settled on the plains to continue with cattle (buffalo) rearing and milk production even while getting encultured into the main stream, formed contrasting groups of interest for study. The third study by Nizammuddin was based on the urban slums of Madras city, in the state of Tamil Nadu. Her sample consisted of women engaged in domestic work outside the house, and women involved in home based production such as pottery and beedi making.

A common methodology was adopted in all the three studies to enable integration and comparison of data at a later stage. Valuable ideas for refining the project methodology were derived from Isely's work on rice cultivating populations in villages near Thanjavur, Tamil Nadu. A detailed description of methodology adopted is presented only in Study 1 by Gill. The objectives of each study and the highlights of their results are presented separately.

INTRODUCTION

The study of the management of multifarious roles by women especially in the poverty settings, has gained focussed attention in recent years (Kumar, 1978; Leonard & Landers, 1991) although their participation in family's economic survival has a long tradition even if not in the strict sense of earning wages. This interest is an outcome of greater insight related to long-term effects of early child care and nurturance pitted against the changes in social and economic conditions that are compelling an increasing number of females to enter workforce. This is more so among the poor women where work is not a matter of equity or self- fulfilment, but is linked with survival (Nieves, 1981).

In rural areas women from landless families hire themselves out as seasonal labourers and so in periods of increased agricultural activity stay out of the house for longer time making child care incompatible with work. In lean periods a large percentage of these women engage in activities like fodder collection, tailoring, weaving, and care of animals to support family economy. (National Perspective Plan for Women, 1988).

Disintegration of joint family system further limits the support for child care within the family more so for poor families, where mothers may be forced to carry children to worksites (Swaminathan, 1985), where bound by work demands they might be unable to provide adequate childcare.

Traditionally, mothers have seldom been the sole person providing care to their young offsprings (Myers, 1990). Other members of the family may substitute the mother either directly by feeding, watching, bathing, and soothing the child, or indirectly by providing assistance with other household activities. Grandparents and other relatives have been found to shoulder child care responsibilities,(Child in India, GOI, 1985). In the absence of the non-working adults to care for children, the burden of child care is usually borne by older siblings, mostly girls (Gill, 1990).

Home based income generation activities may create lesser chances for children being alone but the quality of child care may be affected adversely. On the other hand , even for home based production, rural women are compelled to move out of home to purchase goods and services to keep the home based income generating activities going,thereby raising problem of child care.

It is therefore, important to gain information regarding how mothers manage their multiple responsibilities and what kind of social support is available to them especially in conditions of economic contraints. Such an insight is crucial to the planning of external intervention in the form of need-based child care. Further, recognizing and building upon the existing rich cultural base of social support and time honoured practices that are dependable, is likely to pay better dividends both in terms of feasibility and acceptance.

STUDY I

Women's Work and Child Care

(Sukhdeep Gill, Punjab Agricultural University, Ludhiana)

OBJECTIVES

- *To gain an insight into the daily activities and availability for care of children between 0-5 years by rural mothers in poverty settings in agriculturally peak vs lean periods.*
- *To understand differences, if any, in daily activities and shifts in the locales of rural mothers in agriculturally peak vs lean period.*
- *To identify the coping strategies and type of child care activities carried out by rural mothers vs other family members in agriculturally peak vs lean period.*

RESEARCH QUESTIONS

The major research questions that this study addressed are :

- *How do rural mothers in poverty settings, who have young children, manage their multifarious roles during periods of accelerated economic activity ?*
- *What are the coping strategies employed by these mothers ?*
- *Who are the members of the family, or outsiders who lend support to the mothers in alleviating their work pressures ?*
- *What is the type and extent of role played by alternate caregivers in child care vs other activities ?*

METHOD

The present study was conducted in Jalandhar and Kapurthala districts of North-Eastern State of Punjab, which has 12.88 villages and 108 towns. Agro-climatically, these districts are a part of central plain region where land is homogenous, temperatures vary from 42°C in summer to 4°C in winters. In rabi season, wheat is the dominant enterprise in the region, whereas due to the presence of major crop in Kapurthala district, sugarcane is also cultivated in a sizeable area (Duggal, 1966).

SAMPLE

The sample under study consisted of landless rural women having children below five years of age from three villages namely Daulatpur and Salarpur in Jalandhar district, and Atholi in Kapurthala district of Punjab State.

The following criteria were adopted to define the universe sampled :

- *Land status of the family - Only landless families were included*
- *Presence of young children - The families having at least one child under the age of five years were selected.*
- *Mothers involvement in income generation activities -Mothers involved in at least one*

income generation activity were included. A multistage sampling technique was used.

Stage I.

Three villages Daulatpur, Salarpur and Atholi were selected.

Stage II.

A door to door survey was undertaken with the help of village level workers (Anganwadi workers, female members of Panchayat and Chowkidars) to identify the families that met with the sampling criteria referred to above.

Stage III.

In order to obtain a comparable sample from the three villages, clusters of 10 families were identified and then lots were drawn to select 3 clusters each from Daulatpur and Salarpur and 2 from Atholi. Out of these clusters 77 families were selected. Table 1 shows the sampling frame.

Table 1
Selection of Sample

Sr. No.	*Variables*	*Daulatpur*	*Salarpur*	*Atholi*	*Total*
1.	*Stage I*				
	Total number of landless families	*39*	*127*	*125*	*291*
2.	*Stage II*				
	Familes having children below 5 years of age	*28*	*63*	*43*	*134*
3.	*Stage III*				
	Formation of clusters	*3*	*6*	*4*	*13*
	Selected clusters	*3*	*3*	*2*	*8*
	No. of familes selected	*28*	*29*	*20*	*77*

Data from 35 families that participated in wheat harvesting have been analysed for this report.

SAMPLE LOCATION

The sample families were clustered in one part of the village segregated from the houses of land owning Jat families.

The main streets were made of unlevelled bricks and were fairly wide whereas the side lanes were narrow. Open drainage system, although well laid out, was mostly blocked, thereby resulting in stagnant water. The waste of animals tied in the streets was a common sight. During the winter season, people sat out in the streets adjacent to the animals.

Most of the families had one room and a kitchen and a small open courtyard. While the room was mostly made of bricks, the area of kitchen was demarcated with mud wall in the open courtyard. The floor of the room as well as the courtyard was mopped with a mixture of clay and cowdung paste. The area for cattle was a corner of the courtyard itself. In some cases, due to the shortage of space, the animals were tied outside the house in the lane or kept in the shed away from the home. Most of the houses had demarcated boundaries with the main door/gate for entrance.

PROCEDURE

Preliminary Investigation

Soon after idea generation during the first workshop of IDRC-HDFS Research Network held in February, 1990, field visits were conducted with the following objectives :

- *To develop familiarity with rural settings and establish rapport with subjects.*
- *To identify the target population, with families representing the range of variables of interest in this study.*
- *To explore the feasibility of using tools for data collection.*
- *To collect enthnographic information about the sample.*
- *To enlist the different jobs done by rural women.*
- *To develop an idea of daily routines of rural women.*

The information regarding the familial variables was obtained through an interview schedule. It contained information related to family variables, occupation and education of different family members. On the basis of this data, a detailed project outline was prepared.

Pilot Study

Three techniques namely naturalistic observation, spot observation, and recall interview (recall of previous day's activities) were compared to ascertain the viability of these methods to obtain first-hand information about various activities undertaken by women namely, child care, income generation, routine household, and personal activities.

Training to conduct observations using both the methods namely, observation and interviews was imparted to two masters students by collecting data from two families residing in the nearby slum area. Inter-observer consistency was checked till the observations tallied upto 90 percent agreement.

Naturalistic observation : *In this technique the investigator collects the information by being physically present with the respondent, or around him/her often for the whole day. This is useful for activities which are unstructured, simultaneous and fractionated in very small segments of time (Saraswathi, & Dutta 1988).*

Yesterday activity recall : *The respondent is asked to describe various activities in a sequential manner which were performed during the previous day during waking hours (Khan,* Anker, Dastidar & Patel, (1989). For this purpose a check list of all possible activities of mother and child was prepared to minimise recording time.

Spot observation : *Spot observations are like snap shots and are time sampled. The observer ascertains the ongoing activity and location of the target person, plus the degree to which nearby persons are involved. A spot observation sheet was used for the purpose of collecting data on activities location of different family members at different points in time. Spot observation has the advantage of being rapid, sampling many occasions and reducing the intrusive effect created by the observer by her presence for long periods. (Rogoff, 1978).*

Data was collected using all three techniques from a sample of five mothers, selected on the basis of the earlier stated criteria.

Analysis of Pilot Study Data

For the purpose of analysis, all the information obtained through the three methods was divided into three categories namely, income generating activities, child-care activities and routine household jobs. Frequency of occurrence of each activity was plotted from the observed data, as well as from recall. The comparison of the information thus obtained revealed that more reliable and detailed information could be obtained through naturalistic observation, and dual activities which were generally omitted in recall method, could also be easily observed and recorded. Comparison of the two observation methods revealed that naturalistic observation was very time consuming as compared to the spot observation which was found to be more parsimonious in terms of time and energy. These results were discussed at length in another workshop of IDRC-HDFS Research Network held in January, 1991 where it was decided to use the spot observation technique. An easy-to-record spot observation proforma was prepared. In addition, it was proposed that the technique of "Focussed Interview" be tried out to gain an insight into the community's perception regarding the multiple roles of mothers, and general child rearing practices. The detailed procedure for conducting these interviews was also chalked out. Pilot testing of the spot observation sheet was done on five families to study the feasibility of using it. Two focussed interviews were also conducted. Both the methods were found to yield the requisite information and were therefore used for final data collection.

Spot observation sheet : *The final observation sheet contained four information columns, the first enlisted the names of all the family members in a predetermined sequential manner according to their relationship with target child; the second was meant for the location of each member; proximity of members with the target children was recorded in the third column, whereas details of activities (a maximum of three) being undertaken by each member were entered in the fourth column, differentiating single activity from the joint by a sign of (,) for single sequentially observed activities and (+) for joint. Recording of field notes to supplement the snap-shot view was ensured by providing space on the reverse side of the sheet so as to understand the background of observed snap-shot, and obtain any additional information significant from child care point of view.*

Main Study

Data for the main study were collected from February 1991 to July 1991. The data for the lean period could be completed for two villages i.e. Daulatpur and Salarpur before the beginning of wheat harvest. Data collection for peak period began on 15th of April and was over by 2nd of May 1991. Data for lean period in the village Atholi was collected in late May 1991.

Schedule of observation : *Each observation was scheduled for 15 minutes, including the time taken to move from one family to the next, which took between 1-2 minutes on an average. A total 6 1/2 hours of data per family (26 observations of 15 minutes each) was collected during the total time period of 8.00 a.m. to 6.00 p.m. in 26 units of observations during lean period of agricultural activity (Table 2). The timings of observations were selected randomly to ensure unbiased spontaneity of observation and to avoid any deliberate preparation by the family for the observer's visit. These were spread over a week's time on an average. Care was taken not to repeat a particular time unit for each family. A master plan of the schedule of observation keeping all these points in view was prepared prior to data collection so that the investigator knew the changed sequence in which the observations of a cluster of families were to be conducted prior to going into the field.*

Randomisations of houses : *In order to minimize the time in commuting, clusters of selected families within a village were prepared. There were ten houses in one cluster, except for one cluster in Daulatpur which had seven families. All the houses in a cluster were numbered. The time for one round of observation was 2 1/2 hours. After each round of observation, 2 1/2 hours were kept free during which period information filled during previous round of observation was checked. The remaining time was utilized for personal activities. On the following day timings of observation and rest periods were exchanged to ensure that all the time units from 8.00 a.m. to 6.00 p.m. were included in data collection.*

For data collection during peak period, the mothers were asked (through informal interview) about the child care arrangement during their absence. A list of all the families where the child was/could be taken along was prepared. In the evening preceeding scheduled data collection, the families were asked about whose fields would they go to, for harvest. The field worker from the village went with the observers to actually show the exact location of the fields where work would be undertaken on the following day. Following this, the plan of observation was prepared keeping in mind the feasibility of reaching respective locations using minimum time. A gap of 15 minutes to half-an-hour was planned between two observations depending on the distance to be covered from one field location to another. The rest periods, were therefore curtailed, and personal activities were accomodated in these periods only. The sequence of observation was altered as much as possible. The plan of observation for families where the target children were left in the homes, was prepared separately.

Table 2

Schedule Of Observation

Family	Peak	Lean
Time Period per family	7.00 AM-7.00 PM	8.00 AM 6.00 PM
Total No. of observations per family	20	26
Total period of observation per family	20x15 = 300 Mnts = 5 Hrs	26x15 = 390 Mnts = 6 1/2 Hrs
Total No. of observations	20x35 = 700	26x35 = 910
Total period of observations	700x15 = 105000 = 175 Hrs	90x15 = 13650 =227 1/2 Hrs

Training of observers : Four observers assisted in data collection, out of which one belonged to the village Daulatpur. In order to train the observer, detailed instructions for observation and record were prepared. These were translated in Hindi and Punjabi to ensure comparable level of understanding. A list of all the possible locations within the home and outside, was prepared. Maps of each house including courtyard and adjoining street were prepared. Various locations were marked on the maps by mutual discussion among the research team. A list of all possible activities was also developed. It was decided to use descriptive codes for locations and activities during data collection as it was very difficult for the observers to remember, and correctly recall so many numbers. However, the proximity codes describing the physical nearness of the target child to various persons present were assigned numerical values from 1-10 at the time of observation itself. In order to provide a better understanding of codes and to reach a consensus in the use of these, role play technique was used in which two team members acted as actors and other two decided on the codes. After detailed discussions on these, actual field experience was provided to test the reliability of using these codes. Only after a high degree of reliability was achieved the actual observations began.

Method of observation

During the 15 minutes available per observation, the observer visited the sample house and took a mental snap-shot of the location, proximity (with respect to the target child) and activity of each family member. The time taken for this was usually two minutes. After filling in that information on the data sheet (which took about 5-7 minutes depending upon the number of members in the family) the observer asked the members or other persons present at that time about the whereabouts of the missing members (if any). Similar information was also noted for all the people (neighbours/relatives) present in the house at the time of observation. If there were any major changes in the activities or anything of interest to the observer happened (e.g. return of a member who had gone out) this was also recorded in the field notes.

Entries in data sheet

A data sheet was prepared for each family for each unit of observation. The following information was recorded in the four columns of the data sheet.

1. *Name of the family member according to their relationship to the child. The sequence of noting the names in relation to the target child was - father, mother, siblings (from oldest to youngest), grandfather, grandmother, uncles, aunts, any other. Age was mentioned against the name of the target child. Ordinal position was mentioned against each child in the family as C1 (for the first child) and so on. Gender was mentioned against children's names.*
2. *Location. Location of each family member at the time of observation was recorded against his/her name by using descriptive location codes. Possible location of the*

missing family members and location of others (relatives/neighbours) present in the house at the time of observation was also noted.

3. *Proximity. Proximity (closeness) of each family member in relation to each target child was noted against that person's name in accordance with the proximity codes developed for the purpose. (e.g. in physical contact with reference child=code 1).*
4. *Activity : A maximum of three activities of each family member at the time of observation were recorded.Single activities were noted by putting a coma (,) between these activities. If more than one activity was being done simultaneously, then the sign (+) was added between these activities.*

Preparation for observation.

A day prior to actual observation, spot observation sheets were arranged according to the random sequence already decided upon and the relevant columns of the spot observation sheet such as scheduled time, family serial number, name of the observer, date of observation, name of the village or setting and list of family members were entered as appropriate in each data sheet. This helped in ensuring that the time of observation for each family as well as random sequence of data collection was followed unobstrusively.

At the end of the day's observation, every time unit of data collected for each family was tallied and entered on another master chart which contained information of all possible time units for all the selected families.

Data Analysis

For the purpose of analysing the data, a coding frame was prepared in which the qualitative data was transformed into quantitative data by assigning numbers to all family members, all locales and all activities undertaken by different family members. Based on the actual data, a list of all the possible locales and activities of the different family members was prepared. These activities were categorised into major areas and code numbers were assigned. For example, the codes for family members included O1 for father, O2 for mother and so on to cover siblings, grandparents and other members in a sequential manner. Similarly the codes for the locale of different members were prepared. The codes O1-12 were assigned to the location 'Within home' and 21-54 to the locations 'Out of home'. Different variables for which the data were coded are enumerated below :

1. *Period of agricultural activity*
2. *Age and gender of target child*
3. *Age and gender of the siblings*
4. *Type and size of family*
5. *Location*
6. *Proximity*
7. *Activity*

Analysis of coded data : *The SPSS programme was used to analyse the data. In order to facilitate analysis, dummy tables were prepared in advance.*

RESULTS AND DISCUSSION

The results are presented under the following broad headings :

- *Women's activites in peak vs lean agricultural activity period*
- *Factors affecting womens participation in income generation activities in peak vs lean period of agricultural activity .*
  - *Age and gender of the child.*
  - *Locale of income generation activities*
- *Factors affecting child care activities undertaken by mothers in peak vs lean period of agricultural activity*
  - *Age and gender of the child.*
  - *Number of children below five years of age*
- *Participation of other family members in child care*
  - *Actual child care activities of different family members observed in peak vs lean period*
  - *Availability for child care of different family members in peak vs lean period*
- *Participation of other family members in income generation activities and routine household jobs in peak vs lean period*
- *Participation of different family members in routine household jobs.*

WOMEN'S ACTIVITIES IN PEAK VS LEAN AGRICULTURAL ACTIVITY PERIODS

As can be seen in Table 3, women's involvement in all other activites i.e. child care, routine household and personal activities, declined significantly during peak period in order to accomodate income generation activites.

Frequency of child care activities by mothers dropped to the minimum during this period. The analysis further revealed that in the peak period, the mothers and children under five years of age were at the same locations more frequently, when mothers were involved in income generation whereas in lean period they were at different locations more frequently (Table 4). It was observed that when mothers went for wheat harvest, the whole family went to the fields where older siblings stayed under a shady tree and supervised younger ones. However, in the lean period, the mothers left the children behind when they went for collection of fodder or firewood for various reasons. Firstly, the locations from where they would get fodder or firewood during dry period of summer are not specific and secondly, they go for these activites for shorter durations as opposed to being in the fields for the whole day during wheat harvest. Additionally, during the afternoon hours, young children mostly go to sleep, therefore mothers find it more convenient to go alone.

Table 3

Association Of Different Activities Undertaken By Rural Mothers With Period Of Agricultural Activity.

n(for peak period) = 700
n(for lean period) = 910

Period of Agricultural Activity	Income Generation		Child Care		Personal		Routine Household		Total
	F	%	F	%	F	%	F	%	
Peak	515	50.99	115	11.38	218	21.58	162	16.03	1010
Lean	261	17.41	316	21.08	502	34.48	420	28.01	1499
Total	776		431		720		582		2509

** P < 0.01

Table 4

Comparative Location Of Mother And Children According Mothers Involvement In Income Generation Activities In Peak Vs. Lean Period Of Agricultural Activity.

N=35 families
n(for peak period) = 700
n(for lean period) = 910

Period of Agricultural Activity	Same Location		Different Location	
	F	%	F	%
Peak Period	267	54.05	227	45.95
Lean Period	59	32.07	125	67.93

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Taking children along during the peak agricultural period enables the mothers to perform productive and child care roles simultaneously.

Age and Gender of the Child

Significant value of chi square across all the age groups as well as gender of children highlights that the participation of the mothers in income generation activities is significantly associated with the period of agricultural activity $P < 0.01$ (Table 5). The percentages indicate that mothers participated in income generation activities more frequently in the peak period as compared to the lean period of agricultural activity irrespective of the gender of the child.

Locale of Income Generation Activity

Locale of the income generation activities carried out by the mothers was found to be influenced by the period of agricultural activity, (Table 6). Since a majority of the mothers participated in the wheat harvest, 77.14 percent of the mothers stayed out of home whereas 22.86 percent of the women had to come back home for cattle care also. Therefore, a shift in the locale was inevitable.

In contrast, during the lean period only 28.57 percent of women were engaged in income generation activities which were done exclusively out of the home. These included domestic labour, care of cattle (where cattle shed/area was away from home), and fuel collection.

A few of the mothers were involved in home based activities such as stitching, knitting and cattle care exclusively. However, a majority of the mothers had to go out of home, for a part of the day even though they took up activites which could be predominantly taken care of in the home itself.

Cattle care was found to be the main income generating activity undertaken in the lean period. The mothers who took care of only those activities related to care of the cattle which could be performed at home, had support from other family members who brought fodder, the main activity for which the other women went out of home. In a small number of cases, no income generation activity was observed during lean period since there were no milch animals and the cattle had been sent away to be brought back when they would calve.

FACTORS AFFECTING CHILD CARE ACTIVITIES UNDERTAKEN BY MOTHERS IN PEAK VS LEAN PERIODS OF AGRICULTURAL ACTIVITY

Age and Gender of the Child

In case of female as well as male children across different age groups, frequency of all child care activities except feeding decreased during the wheat harvest time. These results

Table 5

Association Of Mother's Income Generation Activitites With Age And Gender Of Children And Period Of Agricultural Activity.

N=35 families
n(for peak period) = 700
n(for lean period) = 910

Age & Gender of the Child	Peak Period F	Peak Period %	Lean Period F	Lean Period %	x2
Male 0 - 1 year	12	92.31	1	7.69	8.55 *
Female 0 - 1 year	42	70.00	18	30.00	35.78 **
Male 1+ - 3 years	142	64.84	77	35.16	104.27 **
Female 1+ - 3 years	125	63.78	71	36.22	88.63 **
Male 3+ - 5 years	124	72.51	47	27.49	141.56 **
Female 3+ - 5 years	70	59.83	47	40.17	84.63 **

* $P < 0.05$
** $P < 0.01$

Table 6

Shift In The Locale Of Income Generation Activities Of The Mother In Relation To Period Of Agricultural Activities

Activities	Peak		Lean		Total	
	F	%	F	%	F	%
Home Based	0		4	11.42	4	5.70
Out of Home	27	77.14	10	28.57	37	52.85
Home based and out of Home	8	22.86	18	51.43	26	37.14
No Income Generation Activity	0		3	8.57	3	4.28
Total	35		35		70	99.97

indicate that even while the work pressures of the mothers increase, they do not sacrifice survival needs of children. However, considering that the mother's nurturing role includes a whole range of activities from feeding, bathing, supervising, stimulating and interacting, to providing affection and responding to action initiated by the child, child care during wheat harvest suffers significantly (being confined predominantely to feeding and soothing a child in distress), thereby supporting the view of inverse relationship between mother's income generation activities and child care during the peak period of agricultural activity.

Number of Children (below 5 years)

Significant association was found between number of children below five years of age and the frequency of child care activities undertaken by the mothers in different periods of agricultural activity. Irrespective of the number of children, mothers could provide child care more frequently in lean period as compared to peak period (Table 7).

PARTICIPATION OF OTHER FAMILY MEMBERS IN CHILD CARE.

Actual Child Care Activities of Different Members Observed in Peak vs Lean Period.

Next to the mothers, siblings provided child care (Figure 1) most frequently, followed by grandmother (Figure 3) and aunts, (Figure 5) thereby highlighting that child care is basically considered the responsibility of female members. Neighbours were found to share a very small proportion of child care responsibility in the present sample. There was an increase in the child care support given by uncles and aunts during peak periods. Their participation decreased in the lean period.

Comparative analysis of different child care activities undertaken by mother vs other members revealed that during the peak period, while the mothers concentrated most on feeding the children, children were mostly picked up, held, and comforted by the siblings and grandfathers, (Figure 2) followed by uncles (Figure 4) and aunts.

These results indicate that the major responsibility of feeding, hygiene and supervision lies with the mother and siblings followed by grandmothers. The other members namely grandfather, father and visitors hold, pick-up, pacify, or talk to the child, thereby contributing towards the socialization of the young child, and relieving the mother to enable her to take up other pressing tasks.

Availability of Different Family Members for Child Care in Peak Period vs Lean Period of Agricultural Activity

While the active child care is based more on the needs of the child, availability of a person with whom the mother can trust her child when she has to be away from home is an

Table 7

Association Of Mother's Child Care Activities With Number Of Children Below Five Years Of Age In Period Of Agricultural Activity.

No. of Children	Peak Period		Lean Period		
	F	%	F	%	
One Child	54	16.67	157	48.46	24.55** df=5
Two Children	30	9.26	83	25.62	8.77

** P <0.01

FIG.1 Child care activities undertaken by siblings with age & gender of child & period of agricultural activity

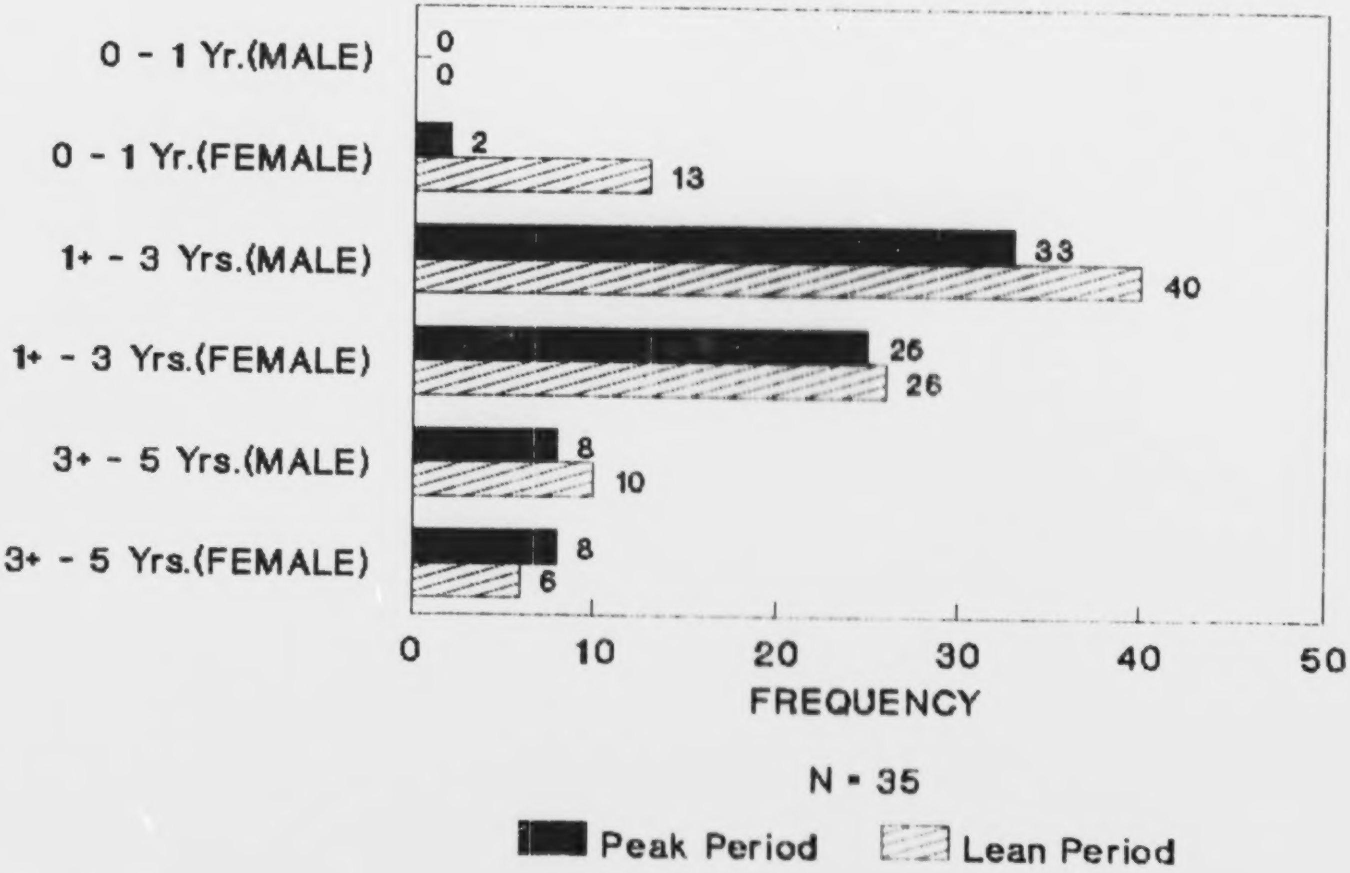


FIG.3 Child care activities undertaken by grandmother with age & gender of child & period of agricultural activity

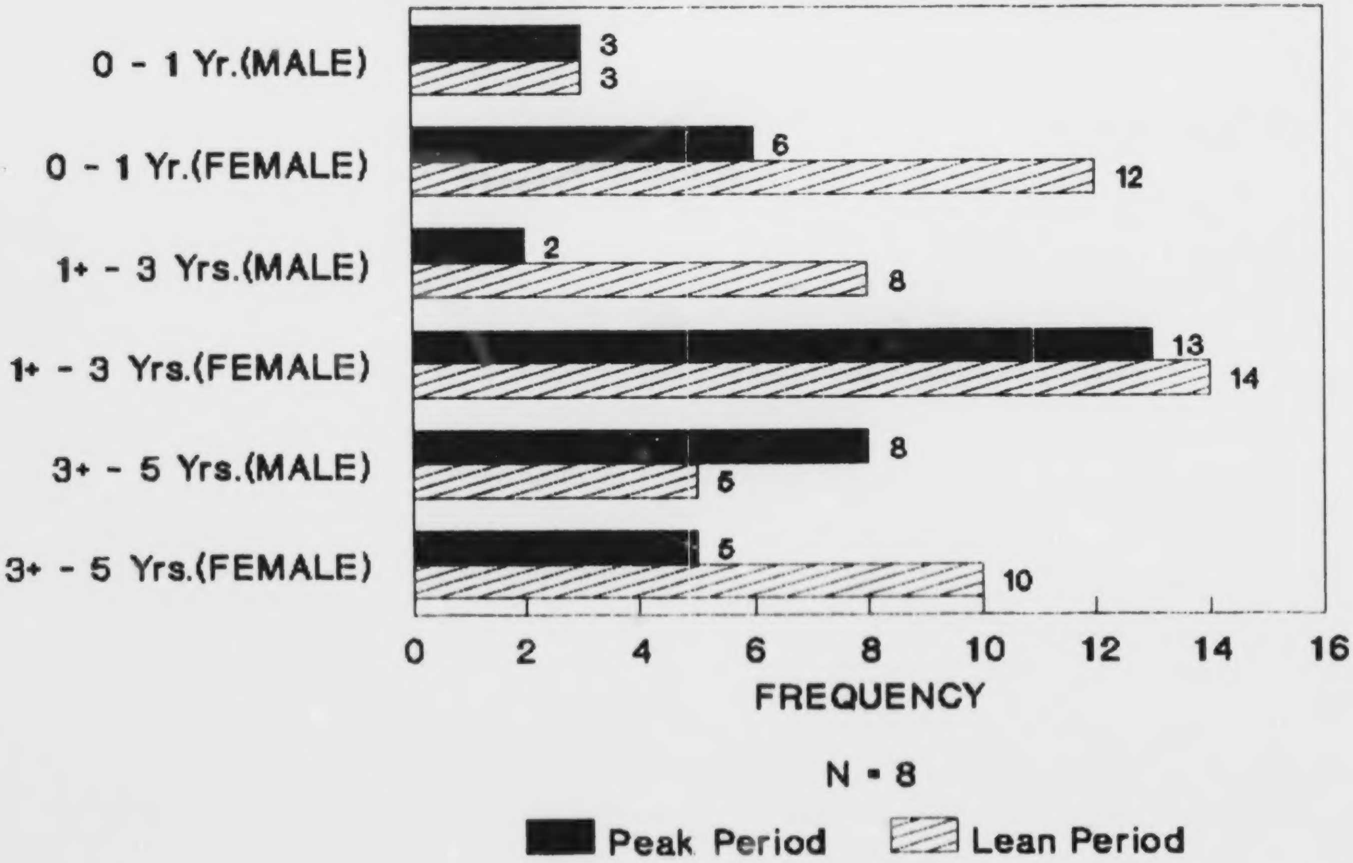


FIG.5 Child care activities undertaken by aunt with age & gender of child & period of agricultural activity

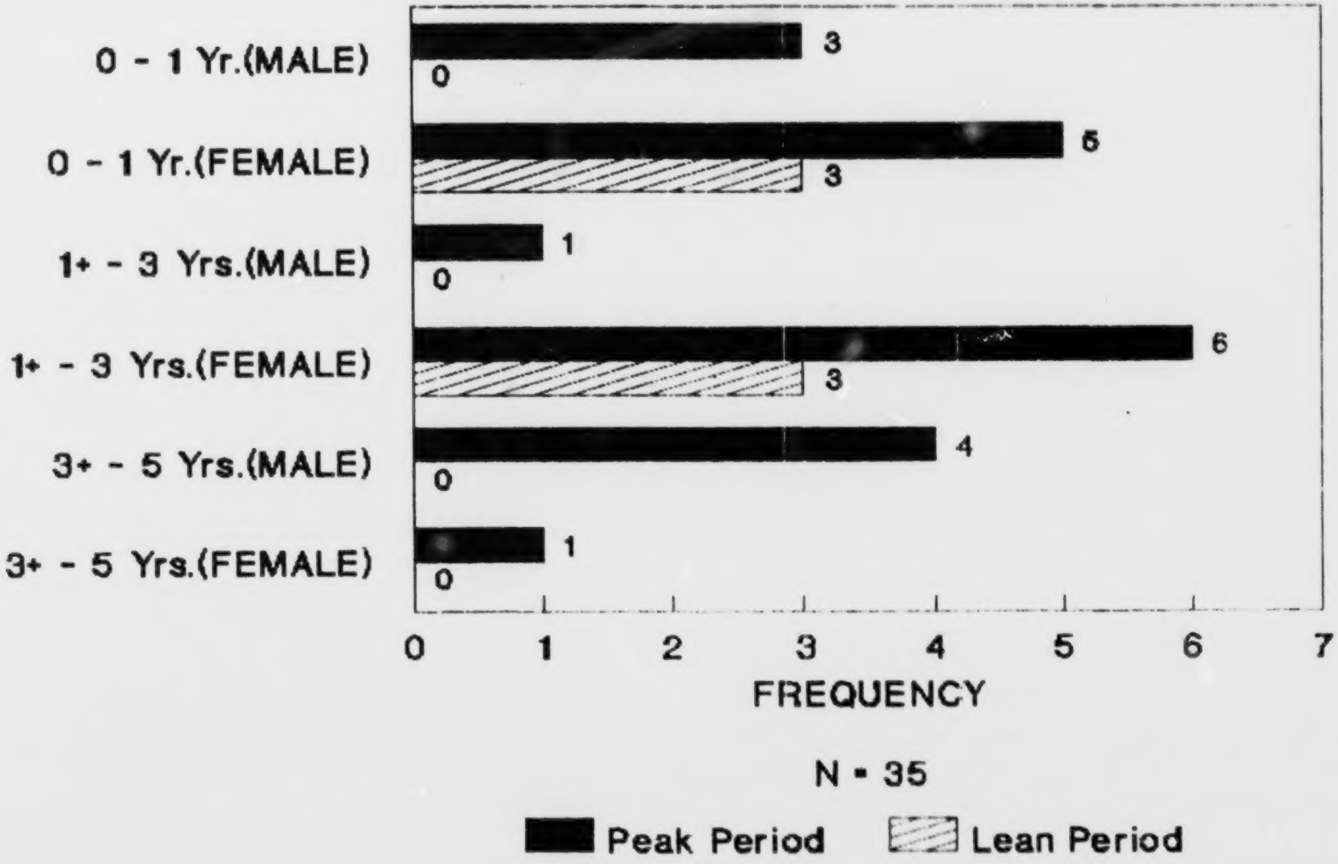
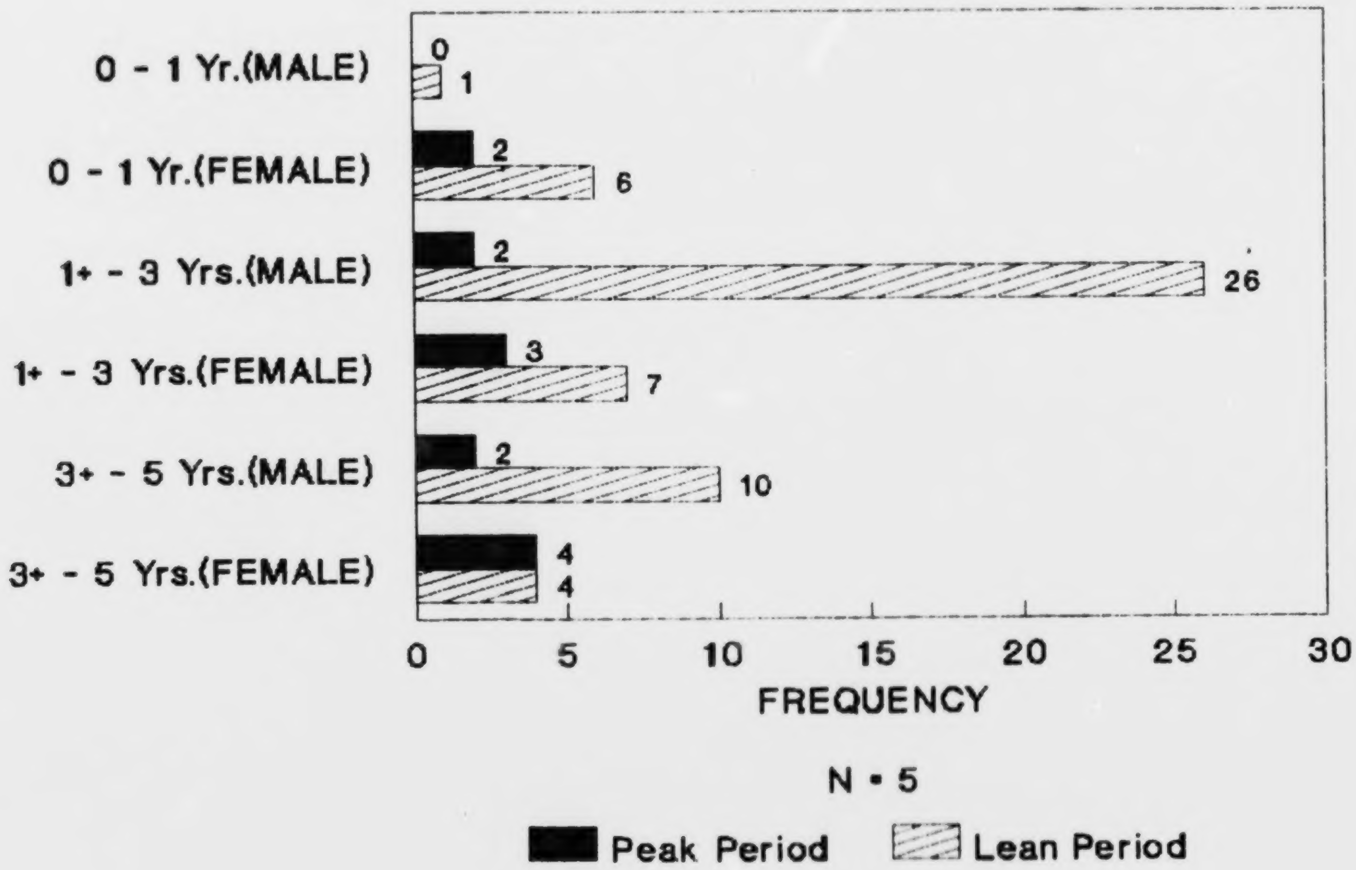


FIG.2 Child care activities undertaken by grandfather with age & gender of child & period of agricultural activity



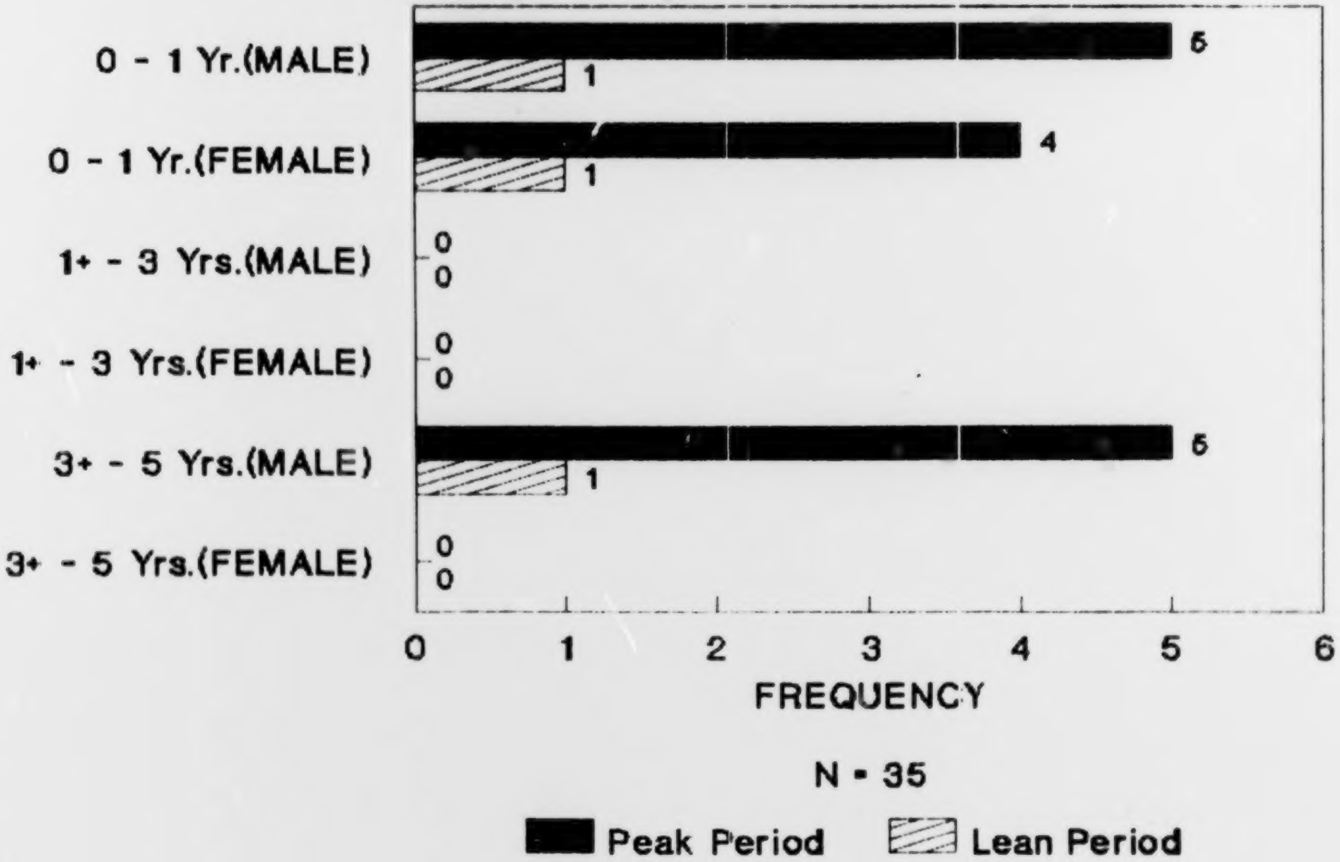


FIG.4 Child care activities undertaken by uncle with age & gender of child & period of agricultural activity

underlying factor influencing her participation in income generation activities. In the present study, the siblings were available for child care most frequently during the peak period, so that they could supervise and attend to the child if and when the need arose. Father and mother were the next most available, followed by grandmother, uncle and grandfather. Support from aunts, neighbours, cousins (who were young children), and unrelated persons was very limited, but was still higher in peak period as compared to lean period. Availability of all the other members mentioned above was found to be higher in lean period, with siblings again being most frequently present.

Participation of Other Family Members in Income Generation Activities and Routine Household Jobs in Peak vs Lean period

Participation in income generation activities : *As evident from Table 8 participation of all the members in income generation activities was higher in peak period of agricultural activities, since all members participate in wheat harvest. Interestingly, siblings were observed to be engaged in income generation most often during peak period, followed by mother, father, grandmother, and others in that order. During lean period, frequency of these activities decreased considerably for all the members, and mothers shouldered major responsibility in cattle care followed by siblings and grandmothers. Since fathers pursued different occupations during the lean period of agricultural activity their participation in cattle care, declined considerably.*

Participation of different family members in routine household jobs : *Participation of different family members, in routine household jobs, was significantly higher during peak period as compared to lean period. During peak period, when mother goes out for work, family members such as grandmother and aunt take care of routine household jobs. These jobs are mostly carried out by siblings followed by mother, father and grandmother, grandfather and uncle during lean period of agricultural activity.* (Table 9).

The major findings of the present study may be summarised as follows :

* *During the peak agricultural period -*

- *mother's engage more in income generating activities and stay out of home for longer durations of time.*
- *mothers' child care, routine household work and personal activities decline.*
- *mothers and children under five are observed to be at same location for more number of times.*
- *siblings are available for the most number of times for child care followed by fathers and mothers.*
- *there is an increase in child care activities by uncles and aunts.*

* *During the lean agricultural period frequency of child care is more by mother irrespective of number of children.*

- *availability of aunts, neighbours, cousins, unrelated persons decreases as compared with the peak agricultural period.*

Table 8

Association Of Income Generating Activities Of Different Family Members With Age And Gender Of Children And Period Of Agricultural Activity

N = 35

Family Members	Peak F	Period %	Lean F	Period %	X2
Father	415	92.22	35	7.78	256.06**
Mother	515	66.54	259	33.46	415.04**
Siblings	612	80.63	147	19.37	325.22**
Grandfather	24	42.86	32	57.14	17.15**
Grandmother	83	60.14	55	39.86	52.20**
Uncle	65	89.04	8	10.96	27.40**
Aunt	52	65.00	28	35.00	20.11**

** $P < 0.01$

Table 9

Association Of Routine Household Activities Under Taken By Different Family Members With Period Of Agricultural Activity

N = 35

Family Members	Peak F	Period %	Lean F	Period %	X2
Father	4	22.22	14	77.77	33.35** df=4
Mother	162	27.83	416	72.16	169.35** df=5
Siblings	304	45.62	348	53.37	74.60** df=6
Grandfather	11	50.00	11	50.00	11.03* df=4
Grandmother	60	63.83	34	36.17	38.20** df=5
Uncle	3	60.00	3	40.00	9.15* df=4
Aunt	40	58.82	31	41.7	20.12** df=4

STUDY II

Child Care Management Among Nomadic and Sedentary Gujjars of Jammu

(Rajni Dhingra, University of Jammu,
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OBJECTIVES

1. *To identify the major caregivers of young children (0-6 years) when mothers were engaged in economic activities within/outside the home.*
2. *To identify the other possible caregivers available for child care.*
3. *To study the association of the following intervening variables on management of child care - (a) Place of work for economic activity of the mother in terms of home based/ outside home. (b) Type of job (cattle-rearing/others) performed by fathers. (c) Age of the child. (d) Gender of the child. (e) Age and gender of caregivers.*
4. *To study the diffrences in the above for the sedentary and nomadic group of Gujjars in order to understand the impact of acculturation on child care management.*

SAMPLE

Rationale for Selection of the Sample

The traditional occupation of Gujjars is buffalo-rearing. They earn their living by sale of cattle products, mainly milk and ghee. Since this activity is carried on at home, Gujjar women are actively engaged in this occupation. Some of them also visit the market to sell their products. The sedentary Gujjars have adopted a different life-style and they have taken up other occupations while retaining their traditional occupation on a small scale. Women continue their traditional role in cattle rearing while men often take up some other job. Gujjar women are known for the hard work they do. Hence, it was thought relevant to study the strategies adopted by their families to integrate womens' child care roles with that of their economic roles.

Sampling Criteria

Forty-eight (48) Gujjar families were selected for the present study; 30 of these families belonged to the nomadic group while 18 of them had adopted sedentary life style. The total number of children (below the age of 6 years) belonging to these 48 families was seventy-nine (79). The following criteria were adopted for sample selection.

- *Presence of at least one child below 6 years of age.*
- *Mother engaged in traditional occupation of cattle rearing.*
- *Families of low socio-economic status.*

Purposive sampling technique was used for selecting the sample.

DESCRIPTION OF THE ECOLOGICAL SETTING OF THE NOMADIC AND SEDENTARY GUJJARS

Nomadic Gujjar families reside in areas which are far off from the main city, whereas, the place inhabited by sedentary Gujjars is close to the main city. Nomadic Gujjars build their temporary houses called 'Kullas' in open fields. The place is given to them by local villagers as their land becomes fertile with the cattle dung. The villagers also get milk-products and cattle dung free of cost from Gujjars. These 'Kullas' are temporary structures made of wood and straw. The houses are located far apart from each other. Each house is surrounded by an open area which is demarcated sometimes by fencing and used to keep animals. The house is a typical structure with a round shape and is divided into two distinct parts inside. One side, at a slightly raised level, is used as living area where the hearth (made of mud) is located. This area is used for storing the eatables, keeping utensils as well as for other purposes for living. The other areas, at the lower level, is used for tying the cattle at night.

The sedentary Gujjars live in Gujjar colony which is inhabited mainly by Gujjars and Muslims. This place is situated on the banks of river Tawi. The land for habitation was provided free of cost to Gujjars by the State Government. This colony is situated on a hilly area and therefore the houses are built at different levels. The houses are permanent and most of them are spacious. The boundaries of the houses are well-demarcated. Inside the house, there are again two levels - on the lower level, there is a courtyard which is open and is used mainly as animal area (some of them had covered part of this area for use as cattleshed). On the upper level is the covered courtyard and the living rooms.

Demographic Characteristics of the Sample

All the mothers, except two, in the sedentary group carried out their economic activities, primarily cattle rearing at home only. In the nomadic group, a large number of them (18/30) go out for market ing milk and related activities.

All the fathers in the nomadic group continue with cattle rearing as their major occupation, while in the sedentary group, 10 out of 17 fathers had taken up other occupations such as in the services or petty business.

About 50% of the families in the sample had an average number of 5-7 members per family. A large number of them had even larger families. Table 1 shows the average family size for sedentary and nomadic families.

While both nuclear and extended families were included in the sample, it was seen that there were more nuclear families in the sedentary group, as is evident from Table 2.

The mothers, in both the groups, were illiterate. All the families were from low socio-economic status. The total family income from all sources was below Rs. 1,000 per month for all the families included in the sample.

Table 1

Family Size

Average Number of Family Members / Family	Nomadic			Settled	Total
	R.S. Pura	Bishnah	Total N= 30	Gujjar Nagar n = 18	n = 48
1 - 4	3	-	3	3	6
5 - 7	12	3	15	10	25
8 -12	6	6	12	5	17

Table 2

Family Composition

Type of Family	Nomadic			Settled	Total
	R.S. Pura	Bishnah	Total N= 30	Gujjar Nagar n = 18	n = 48
Extended	8	5	13	4	17
Nuclear	13	4	17	14	31

TOOLS/TECHNIQUES

See Gill's (Study I) report for detailed description.

PROCEDURE

The procedure followed was very similar to that of Gill's study reported in this volume. Spot observation and focussed group interviews were the prime methods (for details see Gill's paper).

Plan of Analysis

As a first step in analysis of the data, a ready reckoner was prepared after identifying the variables to be studied. Specific questions were developed to study the relationship between variables. A summary of the framework follows (see Table 3).

Coding

Variables were coded in terms of - Type of Group - Sedentary/ Nomadic; Age and gender of the target child; Age and gender of the siblings; Occupation of the mothers in terms of place for economic activity (i.e. home/outside); Occupation of the father according to the type of occupation (e.g. cattle rearing); Mothers' occupations; Location; Proximity; Activity.

Analysis based on Interview Data

Keeping in mind the objectives of conducting the focussed interviews, content analysis of the responses obtained from interviews was undertaken. The information was analysed in terms of : mother's activity pattern, their daily routine; major caregivers for children, alternative possible caregivers; managing child care in mother's absence and in situation of emergency; general child care practices of the group.

RESULT AND DISCUSSION

The results of this study have been discussed under the following subheads and presented in summary form highlighting only key variables.

1. *Child care by various caregivers.*
2. *Mothers' place of work in relation to availability for child care.*
3. *Age of the child in relation to child care by mother and father.*
4. *Compatibility of parent's activities with child care.*

TABLE - 3

FRAMEWORK ADOPTED FOR DATA ANALYSIS

Questions 1	Dependent variable 2	Independent variable 3	Control variable 4	Restricted catagories 5
1) **Who are the available caregivers?** Out of all the people available for child care (namely mother, father, siblings, grandfather, grandmother and any other) who are the ones involved in child care?	Amount of care provided to the child (by each caregiver). To be measured in terms of proximity	Relationship of the caregiver with the child	1) Presence of other available caregivers 2) Relationship, age and gender of these available categivers. 3) Age and gender the target child. 4) Occupation of the caregiver 5) Nomadic/sedentary group.	Only when that particular caregiver is present with the child (For e.g. we can study the mother's involvement in child care only when she is present with the child)
2) **Who is the major care giver of children?** Who is the person who provides more child care out of mother/Father? (Relative involvement of Mother/Father in child care)	Amount of care provided to the child by the caregivers (to be measured in terms of relative proximity, i.e. proximity, of one person against the other)	Relationship of the caregiver with the child	1) Presence of other available caregiver 2) Relationship, age and gender of these available caregivers 3) Age and gender of the target child 4) Occupation of the caregiver 5) Nomadic/Sedentary group.	Only when the two caregivers whose relative proximities are being compared are present with the child.
3) **Variables affecting child care by various caregivers** Does the role of Mother in child care vary according to the place where she carries out economic activities (i.e. home/out of home jobs)?	Amount of care provided by the mother (to be measured in terms of proximity)	Place of economic activity of the mother (i.e. home or outside home)	1) Age and gender of the target child 2) Presence of other available caregivers 3) Nomadic/Sadentary group.	Only when mother is present at the home site with the child.
4) Does father's participation in child care vary according to the place of economic activity?	Amount of care provided by the father (to be measured in terms of proximity)	Place of economic activity of the father (i.e. home or outside home)	1) Age and gender of the target child 2) Presence of other available caregiver 3) Nomadic/Sedentary group.	Only when father is present at the home site with the child
5) Does mother's participation in child care vary according to (a) Age of the target child, (b) Gender of the target child.	Amount of care provided by the mother (to be measured in terms of proximity)	a) Age of the target child b) Gender of the target child	1) Presence of other available caregiver 2) Place of economic activity of the mother 3) Nomadic/sedentary group	

Questions 1	Dependent variable 2	Independent variable 3	Control variable 4	Restricted catagories 5
6) Does Father's participation in child care vary according to (a) Age of the target child. (b) Gender of the target child.	Amount of care provided by the father (to be measured in terms of proximity)	a) Age of the target child b) Gender of the target child.	1) Presence of other available caregiver 2) Place of economic activity of the father 3) Nomadic/sedentary group	
7) How does the age of sublings affect their participation in child care?	Amount of care provided by the siblings (to be measured in terms of proximity)	Age of the siblings	1) Gender of the siblings 2) Presence of other available caregiver 3) Place of occupation of Mother/Father 4) Age and Gender of the target child 5) Nomadic/sedentary group	Observations possible only in situations when the siblings are present with the target child.
8) How does the gender of siblings affect their participation in child care?	Amount of care provided by the siblings (to be measured in terms of proximity)	Gender of siblings.	1) Age of the siblings 2) Presence of other available caregiver 3) Age and gender of the target child 4) Nomadic/sedentary group.	Observations possible only in situations when the siblings are present with the target child.
9) **Compatibility of child care with other activities** How does the type of activity performed by the mother (in terms of household, personal or economic activity) affect her involvement in child care?	Amount of care provided by the mother (in terms of proximity with target child)	Type of activity performed by mother (household/personal/economic)	1) Presence of other caregiver 2) Age and gender of the child 3) Nomadic/sedentary group.	Only when that particular type of activity is being performed by the mother.

Before proceeding with the detailing of the results a few conceptual clarifications related to the use of the term proximity are pertinent here :

1. *For proximity termed as "actual physical contact", it has been assumed that the caregiver was actually caring for the child.*
2. *For proximity labels "within physical reach" and "hearing distance", it is assumed that the caregivers was available for caregiving, but whether actually care was being provided or not is unclear.*
3. *In the case of proximity "not near", the caregiver was not available for caregiving since the child and caregiver were away from each other.*
4. *Proximity, "gone together" refers to instances wherein the caregiver and the child were together, but it was not clear whether the caregiver was actually caring for the child.*

CHILD CARE BY VARIOUS CARE GIVERS

Mothers & Fathers

In Table 4, if we compare the availability of mothers and fathers for child care across the nomadic and sedentary groups, we find that the mothers in the nomadic group remained more **frequently** *away from the children (49.5 %) as compared to those in the sedentary group (18.7 %). This difference appears to be due to the fact that the nomadic mothers were actively engaged in economic activities outside the home while the sedentary mothers carried on these activities at home only. However, when present at home, the nomadic mothers maintained closer proximity with the child (and hence were more available for child care) than the sedentary mothers.*

Fathers in both the nomadic and sedentary groups were away for more than 50 per cent of the time. This is contrary to expectations. It was hypothesized that the nomadic fathers would be more available for child care because (i) they were engaged in cattle rearing as the major economic activity which is carried on at home mainly and (ii) since the nomadic mothers are away more frequently (as compared to sedentary mothers), the fathers would be expected to assume this responsiblity. However, the fathers in the nomadic group were seen going out for economic activities like feeding and grazing the cattle, collecting fodder etc. which could not be done by the women. Hence the child care responsibility was shared by other members of the family in the nomadic group, as well as in the sedentary group.

Siblings

As can be seen in Table 5, in both the nomadic and sedentary groups, the female siblings were more available for child care than male siblings at all ages. The disparity was most marked in the case of 15+ age group of siblings. Further, when present in the same location as the reference child, the female siblings were in closer proximity than the male siblings, On the whole, a very low frequency of physical contact was observed, this being most negligible in the case of male siblings. However, it is interesting to note that older male siblings in the sedentary group do take the young children out with them nearly 25 per cent of the time.

Table 4

Child Care By Mothers And Fathers (in Terms of Proximity to the Reference Child).

Proximity to the reference child in %	Mothers (n=48)		Fathers (n=42)	
	Nomadic group (n=30)	Sedentary group (n=18)	Nomadic group (n=25)	Sedentary group (n=17)
Physical contact	6.7	5.6	2.4	1.0
Within physical reach(without effort)	11.7	6.8	4.8	4.5
Within physical reach(with effort)	8.9	12.3	4.0	3.9
Looking distance (without moving the neck)	3.8	8.9	4.1	4.3
Looking distance (with movement of neck)	3.9	5.0	6.8	1.2
Hearing distance	8.4	17.6	7.9	6.8
Calling distance	6.2	15.7	9.7	11.7
Away from each other	49.5	18.7	57.8	52.1
Gone together	0.6	6.2	2.0	8.1
Not known	0.0	2.8	0.0	5.9

Table - 5

Child Care By Siblings (in Terms of Proximity to the Reference Child).

Proximity to the reference child %	Nomadic group						Sedentary group					
	15+ - above		9+ -15		6+ -9		15+ - abo		9+ -15		6+ -9	
	M **	F **	M	F	M	F	M	F	M	F	M	F
Physical contact	0.0	0.0	1.5	0.9	0.3	4.0	0.0	0.0	0.3	2.5	1.2	5.1
Within physical reach (without effort)	0.0	7.1	5.5	6.8	8.6	19.0	0.0	8.3	1.5	3.3	6.2	6.2
Within physical reach (with effort)	4.4	19.0	6.8	10.7	4.9	10.7	2.5	5.6	4.6	9.1	10.0	15.7
Looking distance (without neck movement)	1.6	3.5	5.5	4.5	1.1	5.0	0.0	10.0	7.3	7.8	3.1	8.5
Looking distance (with neck movement)	11.6	7.1	6.8	8.8	3.0	4.2	0.0	3.3	3.8	5.0	2.5	5.9
Hearing distance	6.6	17.8	8.1	10.7	3.4	12.9	0.0	13.3	6.1	13.7	6.8	7.3
Calling distance	6.1	17.8	7.8	12.6	7.5	9.3	0.0	8.3	6.5	5.8	6.2	9.6
Away from each other	68.8	27.3	57.8	44.8	63.4	32.3	75.0	45.0	39.6	37.8	48.7	22.9
Gone together	0.5	0.0	0.0	1.9	7.5	1.7	22.5	1.7	26.5	11.2	13.7	11.7
Not known	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.0	2.8	1.2	6.4

Note :
* 15 + and above, 9+-15 and 6+ - 9 are the age groups of siblings
** M and F stand for males and females respectively.

Grandparents

The grandparents were available for child care in nearly 50 percent of the observed instances, with the grand mothers being slightly more available than grandfathers (Table 6). This was the case in both the nomadic and sedentary groups. Further, when in the same location as the reference child, the grandmothers were in closer physical proximity to the child than the grandfathers.

MOTHERS' PLACE OF WORK FOR INCOME GENERATION IN RELATION TO CHILD CARE

As can be seen from Table 7, mothers involved in home-based economic activity were more available for child care than mothers who were away from the home site. This was particularly evident in the case of the nomadic group, since only two mothers in the sedentary group worked outside the home.

Age of the Reference Child in Relation to Proximity of Mothers

The following observations are based on Table 8.

- mothers in both the nomadic and sedentary groups are more available to young children below three years of age when compared with older children above three years of age.
- there is also a trend toward closer physical proximity with younger children.
- even though sedentary mothers are on the whole more available for child care, in terms of physical proximity, when present with child, they are mostly in hearing or calling distance. Whereas in the case of nomadic mothers, when present in the same location they are closer in physical proximity across all age groups.

AGE OF THE CHILD IN RELATION TO FATHER'S AVAILABILITY FOR CHILD CARE

Data presented in Table 9, indicates the following :

- In contrast to the mothers greater availability for younger children, the fathers in both nomadic and sedentary groups are least available for the youngest age group of children (0-1 years).
- Fathers are comparatively more available to the older groups of children (1-3, 3-5 and 5-6 years) and also appear to take the older children along when they go out especially, among the sedentary group.

COMPATIBILITY OF PARENTS' ACTIVITIES WITH AVAILABILITY FOR CHILD CARE

Table 10 summarizes the daily life activities engaged in by the mothers and fathers in the nomadic and sedentary groups. Mothers regardless of the site of income generation(home-

Table 6

Child Care By Grandparents (In Terms Of Proximity To The Reference Child)

Proximity to the reference child (%)	Nomadic Group		Sedentary Group	
	Grand Mothers	Grand Fathers	Grand Mothers	Grand Fathers
Physical Contact	3.8	1.1	2.7	0.0
Within Physical Reach (Without effort)	5.4	5.0	3.6	2.1
Within Physical Reach (With effort)	9.0	6.7	5.4	7.1
Looking distance (without neck Movement)	3.1	5.6	3.1	2.1
Looking distance (with neck Movement)	10.7	11.5	0.4	0.0
Hearing Distance	10.2	6.2	7.2	8.5
Calling Distance	7.1	11.5	12.2	13.5
Away from each other	47.8	51.4	46.3	53.5
Gone together	1.9	0.2	9.0	7.8
Not Known	0.7	0.2	9.5	0.0

Table 7

Place Of Work For Economic Activity Affecting Child Care By Mothers (In Terms Of Proximity To The Reference Child)

Proximity to the reference child (%)	Nomadic Group		Sedentary Group	
	Home based (n=12)	Outside based (n=18)	Home based (n=16)	Outside based (n=2)
Physical Contact	9.4	3.4	5.3	8.3
Within Physical Reach (Without effort)	18.5	3.4	6.3	11.6
Within Physical Reach (With effort)	11.7	5.4	12.2	13.3
Looking distance (without neck Movement)	4.9	2.5	8.2	15.0
Looking distance (with neck Movement)	5.2	2.2	4.8	6.6
Hearing Distance	10.9	5.4	18.1	13.3
Calling Distance	8.1	3.8	16.3	10.0
Away from each other	30.2	73.0	18.7	18.3
Gone together	0.7	0.4	6.5	3.3
Not Known	0.0	0.0	3.1	0.0

Table - 8

Age of the Child Affecting Child Care By Mothers (in Terms of Proximity to the Reference Child).

Proximity to the reference child %	Nomadic group 0-1 *	Nomadic group 1+-3	Nomadic group 3+-5	Nomadic group 5+- 6	Sedentary group 0-1	Sedentary group 1+-3	Sedentary group 3+-5	Sedentary group 5+-6
Physical contact	15.5	6.2	2.2	7.6	10.8	9.1	0.6	0.0
Within physical reach (without effort)	11.1	13.2	10.0	13.6	8.3	9.1	5.0	3.3
Within physical reach (with effort)	5.0	12.8	8.8	7.1	8.3	15.4	11.2	11.6
Looking distance (without neck movement)	3.8	4.2	3.6	3.5	4.1	8.3	13.1	9.1
Looking distance (with neck movement)	3.8	5.4	4.1	1.1	5.8	2.9	8.1	4.1
Hearing distance	8.8	8.1	7.7	10.0	25.8	16.6	17.5	11.6
Calling distance	7.2	5.8	5.5	7.1	17.5	18.7	10.6	15.0
Away from each other	44.4	42.4	57.7	48.5	4.1	12.9	24.3	37.5
Gone together	0.0	1.5	0.0	1.1	10.0	5.0	6.8	4.1
Not known	0.0	0.0	0.0	0.0	0.0	1.6	2.5	3.3

Note : * 0-1, 1+-3, 3+-5, and 5+-6 are the ages of reference children

Table - 9

Age of The Child in Relation to Child Care By Fathers (in Terms of Proximity to the Reference Child).

Proximity to the reference child (%) reference	Nomadic group				Sedentary group			
	0-1 *	1+-3	3+-5	5+-6	0-1	1+-3	3+-5	5+-6
Physical contact	1.6	3.8	1.6	1.1	1.6	1.2	0.6	0.8
Within physical reach (without effort)	2.2	3.5	3.6	8.8	4.1	6.6	3.7	1.6
Within physical reach (with effort)	2.2	3.1	2.5	7.1	2.5	5.4	2.5	4.1
Looking distance (without neck movement)	2.2	1.9	4.1	6.5	3.3	4.1	6.8	2.5
Looking distance (with neck movement)	6.1	3.1	6.3	9.4	1.6	0.8	0.6	2.5
Hearing distance	6.6	5.0	8.6	6.5	4.1	6.2	8.7	8.3
Calling distance	8.3	7.0	11.1	5.3	2.5	12.5	15.0	15.0
Away from each other	58.8	58.3	45.8	39.0	66.6	50.0	49.3	45.8
Gone together	2.2	3.5	1.1	0.0	8.3	2.9	10.0	15.8
Not known	9.4	10.5	15.0	15.9	5.0	10.0	2.5	3.3

Note : * Age-categories of reference children

Table 10

Mothers' and Fathers' Activity Profile

Type of Activity	Nomadic n	Nomadic %	Sedentary n	Sedentary %
Mothers				
Household	342	21.92	355	47.21
Economic	498	31.92	86	11.44
Personal	474	30.39	167	22.21
Child care	153	9.81	68	9.04
No activity recorded	93	5.96	76	10.11
Total no. of activities recorded	1560	100.00	752	100.00
Fathers				
Household	23	1.73	22	3.24
Economic	668	50.30	224	32.99
Personal	496	37.35	154	22.68
Child care	67	5.05	14	2.06
No activity recorded	74	5.57	265*	39.03 (often away from home site)
Total no. of activities recorded	1328	100.00	679	100.00

based or outside home) devote about the same amount proportion of time (in terms of proportionate allocation) for child care i.e. about 9-10% of total activity profile. The additional demands of income generation in the case of the nomadic mothers is counter balanced by cutting down on household activities. Child care is not reduced. Fathers interestingly provide very little assistance in household work though the nomadic fathers do so in relation to child care. The other strategies used by the mothers to cope with the work demands was to get up early (many were up by 4 o'clock as reported in the focussed group interviews) and complete much of the cattle care and household tasks before the children got up.

Interviews with mothers further revealed that child care was perceived by mothers as caring for the child's physical needs and relieving him / her of distress. Emphasis was on good food, clothing and education.

Mother was viewed as a primary care giver though assistance from older children, grandparents and even neighbours/relatives was sought and acknowledged. Other support was utilized only when the mother's income generating activity was not compatible with child care. In a few cases when no other support was available a relative was called over to join the household to take care of young children while the mother went out to work.

STUDY III
Management of Child Care Among Working and Non Working Mothers in the Urban Slums of Madras
(Sabira Nizammudin, J.B.A.S. Women's College,Madras)

THE FOCUS OF THE PRESENT STUDY

The present study focussed on the child care supports of the youngest child in the family termed as the "Reference child'. It seeks to identify the child care supports as influenced by the nature of the mother's job in :

(1) families with young children only, when the mother is PRESENT with the child,

(2) families with young children only, when the mother is NOT PRESENT with the child,

(3) families with young and older children, when the mother is PRESENT with the child,

(4) families with young and older children, when the mother is NOT PRESENT with the child.

A distinction is made between two concepts of care giving namely, the care-giver and the person available for care, (but not necessarily carrying out a child care activity). Such a differentiation was considered necessary because casual observations have shown that child care is not a continuous activity which needs to be performed all the time, and during the entire day. Care may be given as and when the need arises, as sought by the child or as perceived by the mother; for the rest of the time the person may only need to be available in the close vicinity of the child.

METHOD

The methods used in the investigation were similar to those of Gill (Study I) and Dhingra (Study II). The variables chosen for the present study included : mothers' occupation, age-structure of children in the family, mother's vicinity and the type of child care supports available.

MOTHER'S OCCUPATION

Three categories of women have been included.

1. *Fulltime Housewives.*
2. *Mothers working at Home.*
3. *Mothers working Outside the Home.*

AGE STRUCTURE OF THE CHILDREN IN THE FAMILY

The age structure of all children in the family under sixteen years of age were considered. Two categories of this variable were taken into account.

1. *Families with young children only, i.e. below 6 years of age.*
2. *Families with young children (below 6 years) and older children (6-16 years) of age.*

MOTHER'S VICINITY TO THE REFERENCE CHILD

The categories here are

1. *Mother present with the child*
2. *Mother not present with the child*

CHILD CARE SUPPORTS

Child care supports refers to the help in child care for children under 6 years offered to the mother by different persons or day-care institutions. This includes actual care-givers who are directly involved in child care activities; and persons closely available for care when need arises. The aim was to identify not only the actual care givers but also the potential care givers often overlooked in other research investigations.

SAMPLE

The setting for the study was six slums in Madras City in South India. These slums were selected in order to get sufficient numbers of income generating mothers and full time housewives of same socio-economic status. The six slums were from the urban areas of Lloyds Road, Royapettah and Vyasarpadi. A survey of the slums was done, and a list was made of all intact families, having at least one child below six years.

The final sample comprised of 106 families, with 35 mothers who were full time housewives, 36 mothers working for income at home and 35 mothers working outside as wage earners. Majority of the mothers working at home, were beedi- and pottery makers and earned an income of Rs.10-20 per day. All mothers working outside worked as domestic helpers for middle-class families. Mothers working outside spent at least four to six hours away from home and earned in the range of Rs.85-300 per month.

TOOLS

The following techniques/schedules were used to collect data for the present study :

1. *Background Information Sheet for collecting preliminary data related to families, developed by Sabira Nizamuddin.*
2. *Proforma for the Spot Observation based on the proforma developed by Isely and Langford (Personal communication, December 31, 1990) modified by T.S. Saraswathi (personal communication, January 2, 1991).*
3. *Field Notes (descriptive record of general child care events observed while conducting spot observations)*
4. *Framework for Focussed Interview developed by the child care team of the International Development Research Centre.*
   (For details see Gill's report - Study I)

PROCEDURE

Data for the 106 families was collected by six observers who were trained to conduct spot observations. Data was collected in the huts, where the interaction of family members was observed in reference to the sample child. The above mentioned tools were used to obtain data.

ANALYSIS

The Chi-square test was applied to see whether there is any association between use of child care supports and the three groups of mother's during occasions when the mother is present with the child and not present with child in families with children of varying age groups. Bar diagrams have been used to graphically represent the data in the report.

RESULTS AND DISCUSSION

The results obtained from the spot observation and field notes are as follows :

CHILD CARE SUPPORTS IN FAMILIES WITH CHILDREN BELOW SIX YEARS WHEN MOTHER IS PRESENT

It is found that within each of the three groups of mothers, the mother provides the maximum amount of child care when present with the reference child followed by relatives, father and neighbour. This is supplemented by information available from field notes that when mothers are present in the reference child's vicinity, mother herself is the care giver more frequently than other family members. When comparison is made across the three groups of mothers it is found that the mothers working outside render more child care (33% of the time) whenever they are present with the child followed by housewives (29% of the time) and mothers working at home (25% of the time). Rendering care means feeding the *child, grooming the child, carrying the child while cooking, listening to the child and simultaneously rolling beedis and so on.*

CHILD CARE SUPPORTS IN FAMILIES WITH CHILDREN BELOW SIX YEARS WHEN MOTHER IS ABSENT

Among housewives the child is in the anganwadi for nearly half of the time and there is no caregiver or person available at home for 15% of the time. For mothers working at home, child is in the anganwadi a quarter of the time, 18% of the time relatives are care givers, 13% of the time the child is left alone. For mothers working outside relatives care for child one third of the time and one quarter of the time child is alone at home. There are fairly low instances of child going to the anganwadi in the last category.

CHILD CARE SUPPORTS IN FAMILIES WITH OLDER CHILDREN (6-16 YEARS) WHEN MOTHER IS PRESENT

Within each of the three groups of mothers it is evident that whenever the mother is present with the child the care givers are primarily the mothers themselves, followed by siblings and fathers or siblings and then relatives. The older children above ten provide more care than younger children. Girls especially provide more care than boys. Field notes also confirm that older female siblings (6-15 years) are more often care givers than older male sibings. When comparison is made across the three groups, it is found that on the whole care giving is less frequent among mothers working outside than the other two groups of mothers at home.

CHILD CARE SUPPORT IN FAMILIES WITH OLDER CHILDREN (6-16 YEARS) WHEN MOTHER IS NOT PRESENT

Across all three groups it is found that nearly half the time the child is in the an. ganwadi. In the remaining time the sibling and relatives are mostly the care givers or are closely available for care. Field notes reveal that for mothers working outside, female relatives are more frequently the care givers than mothers of the other two categories. In this category children are more frequently in the anganwadi when compared to children in the other two groups of housewives and mothers working in the home.

It is observed that there is consistency in the data of spot observation and field notes in who cares for children . The order, in terms of frequency is essentially : mother, older siblings (mostly female), female relatives, father and neighbours.

FOCUSSED INTERVIEWS

The data obtained from the focussed interviews supplemented that of spot observation and field notes. The mothers opined that child care given by older siblings was inadequate and husbands did not offer much support but in their circumstances they had no choice.

When asked about child care activities mothers gave importance to activities such as feeding, bathing the child, grooming, and sending the child to school, There was no mention of talking to the child, 'playing', 'disciplining' as being important. Regarding child being left alone at home, mothers felt that they were safe since they had neighbours or relatives who always "kept an eye" on the child.

Only in the case when mother had no one to care for the child they carried the child to the workplace, or the shop or road pump. Table 1. summarizes the results for patterns of child care across the three groups of mothers and age groups of children.

To sum up, the following key points emerge out of the analysis of the child care data from Madras slums :

- *Mothers in all three groups when present in the same location as the reference child are the primary care givers, followed by siblings (if older than 6 years), relatives, father and neighbours.*
- *When mother is working outside the home, child is left in the anganwadi or in care of older siblings (if present) or looked after by relatives and at times carried along to work place if the work conditions permit. - Female siblings contribute more as alternate care givers than do male siblings.*
- *The child is left alone (in rare instances) only in those cases, where mother goes for work outside the house and there is no alternate care giver available or she cannot carry the child to work place.*

CONCLUDING COMMENTS

The observations and comments presented in this section are based on the findings of the three studies reported so far as well as those of another parallel study conducted by two masters students at the M.S. University of Baroda (Ganapathy, H. & Mammon, A. 1993).

1. *In a subsistence economy wherein survival needs assume priority, child care in the first few years also focusses mainly on the basic physical needs of the child - food, minimum safety, some shelter to guard against the harsh weather conditions.*
2. *Each eco-cultural setting makes its own adaptation to meet the minimal child care needs, especially of infants. The adaptations may be seasonal, as in the case of agricultural labourers whose work is characterized by peak and lean periods of work. In other cases, wherein mothers work takes her away from the home site for fairly long periods of time, as in the case of the tea pluckers or domestic servants, more long term arrangements are called for.*

Table 1

"Who Cares"

	When mother is present	When mother is absent
CHLD.<6 FLYS	* Mothers, when present in the same location as the child are the primary care givers * MWO give more child care compared to HW and MWH i.e. MWO > HW > MWH	* Amount of time the child is in anganwadi in mother's absence across the 3 groups of mothers is - HW > MWH > MWO * Amount of time child is left alone MWO > HW > MWH * Relatives as care takers follows the pattern - MWO > MWH
CHLD.>6 FLYS	* Mothers give maximum child care when present followed by siblings and father or siblings and then relatives. * In terms of amount of child care given older children>younger children (above 10) Girls > boys Older female siblings > Older male siblings * Pattern of child care by siblings across occupations MWH > HW > MWO * MWO carry child to work place when no alternate care givers/facilities are available.	* Across all occupations child is in anganwadi for considerable time. MWO > MWH = HW * Siblings and relatives are most frequently the alternate care givers. * For MWO, female relatives are care givers most frequently than in the case of other two categories (HW & MWH)

Note : HW denotes house wives
MWH denots mothers working at home
MWO denotes mothers working outside the house

3. *The child care supports available to the mothers, whether seasonal or of a more permanent nature, are invariably in the form of a negotiated settlement (seldom articulated so) based on the best possible option in a situation of economic constraints.*
4. *Thus, when the women's wages during the harvest season means adequate food for the family atleast for a few months following the peak season, family support is marshalled. Older women/men who cannot join the labor force or nursing mothers with very young infants take charge of the domestic front. Older siblings are withdrawn from school (in some cases the schools free the children during harvest season) and assume child care responsibilities either at the home site or at the work site under the mother's watchful eyes. Male members such as grand fathers, and uncles also give a helping hand.*
5. *In the case of mothers employed in more regular jobs such as tea plucking, and domestic work and which require mother's absence from home for fairly long periods every day, available formal child care services such as anganwadis or creches are used. Such arrangements are often of poor quality and are opted by the mothers only in the absence of other alternatives.*
6. *Except in states like Kerala, wherein practically all girls in all social classes are enrolled in school, the older female sibling does assume a major child care responsibility.*
7. *No matter what the circumstances, the mothers in all settings are still the primary caregivers of children below 5 years.*
8. *Contrary to popular opinion (and mothers' own perceptions) the fathers in poverty settings do participate in child care, though (a) to a lesser extent than mothers and female siblings; (b) more with older children (1 to 5 years) than with infants below 1 year; (c) are more available to 'keep an eye on the child' than actually giving care; and (d) they extend more help only when no other support is available to the mother.*
9. *Children below 5 years are seldom left alone with no one near the vicinity (i.e. beyond hearing distance or unavailable to respond to the child's cry). Even in rare instance where the child 'appears' to be left alone, neighbours are available when need arises. In a setting where walls are thin and adjoin the neighbouring hut and the courtyards/ lanes are common and open , there is an unsaid understanding that neighbours will pitch in when need arises i.e. if the child is in trouble (mothers in all communities voice this opinion).*
10. *In settings wherein child care is geared towards meeting the minimal needs of safety and survival, mothers seldom reduce their child care time because of wage work. The alternative strategies adopted for meeting the child care needs (other than seeking other's help) include : extending the day by waking up early or staying up late to complete the household chores; combining child care with other activities (e.g. carrying the child on the hip while cooking or fetching water); taking the child to work site when permitted to do so or having a home based job (such as beedi making) that can accomodate the young child's proximity to the mother; reducing wage work time (thereby reducing income especially when the infants are breast fed).*
11. *Though no instance of sending away young children for foster care by relatives was observed in the present set of data, such instances were reported by mothers. as another possible temporary arrangement.*

12. *A significant conceptual and methodological approach that emerges from the present set of studies relates to the concept of availability for child care. Reported data on child care, take into account only direct child care activities. Even these direct care activities are frequently under reported because of the methodological problems associated with both observation and free recall methods. What is more critical is the fact that the concept of availability for child care has a broader connotation in that persons are available in the vicinity of the child (a) protecting the child from coming to harm when need arises; (b) sensitive to cues that can be seen or heard; (c) reassuring both the caregiver and the child of each other's presence.*

In sum, the data presented herein regarding mothers work and child care provide sufficient evidence to question the validity of the myths related to child care namely, (a) mothers are sole caregivers of young children; (b) child care is always direct; (c) child care suffers when mothers take up work for wages.

The discussion so far has focussed on minimal child care to ensure safety and survival. The idea of quality child care that ensures not only optimal health, and nutrition but also socio-emotional interaction and cognitive stimulation is an entirely different matter. The million dollar question here remains "what right do we have to expect care beyond survival in a subsistence economy wherein the mother can stretch the 24 hours no further, where all working hands are needed to keep the wolf at bay and where child survival itself is viewed as god's gift to (wo)man kind"? Unless the State is able to intervene with user-friendly formal supports and until the community moves beyond subsistence level, quality child care must of necessity take the back seat.

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PART III

APPENDICES

APPENDICES

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Appendix A
PROFILE OF CORE PARTICIPANTS

Sr No	Name of Researcher	University	Education	Theme of Proposed Research
1.	S. Kamala	Avinashilingam Institute for Home Science and Higher Education for women Coimbatore.	M.Sc. M.Phil.	Relative contribution of anganwadi program, children's background variables and home environment on their development abilities.
2.	Visala Patnam	Marathwada Agriculural University, Parbhani.	M.Sc.	Assessment of self esteem of women.
3.	Shobha Nandwana	Rajasthan Agricultural University, Udaipur.	M.Sc.	Self esteem of rural and tribal women.
4.	Minoti Phukan	Assam Agricultural University, Jorhat	Ph.D.	Acquisition of Reading and writing in Assamese
5.	Juri Barooah	Assam Agricultural University, Jorhat	Ph.d.	Acquisition of Reading and writing in Assamese
6.	Suman Verma	Govt, Home Science College, Chandigarh	Ph.D.	Time usage of youh in institutions of higher education.
7.	Sukhdeep Gill	Punjab Agricultural University, Ludhiana	M.Sc.	Rural women as caretakers of children and partners in incomegenerating activities : The balancing act.
8.	Sabira Nizammudin	Justice Basheer Ahmed Sayeed Women's College, Madras.	Ph.D.	Child care and economic activities among women in the urban slums.
9.	Rajni Dhingra	Univ. of Jammu, Jammu	M.Sc.	Time use among Gujjar women for child care and income supporting activities.
10	Suja Khoshy	SVT College, SNDT University, Bombay	M.Sc.	Acquisition of Reading and writing in Marathi

APPENDIX B

PAPERS PREPARED FOR THE SYMPOSIUM(1990) ON NEW DIRECTIONS IN HDFS : RESEARCH, POLICY AND PROGRAM INTERFACES

	Title Of Paper	***Author***
	Family Studies	
1.	*Study of childhood and family*	*Krishna Kumar*
2.	*Research on marriage in India : Interface with laws and interventions*	*Murli Desai**
3.	*Women's studies as a cross–fertilizer for human development and family studies*	*Shagufa Kapadia*
4.	*Family studies in the Indian context: A critical appraisal and new directions*	*Rajalakshmi Sriram*
	Early Childhood Care and Education	
5.	*Early childhood care and education with specific focus on policy issues*	*R.Muralidharan & Venita Kaul*
6.	*Early childhood education with special focus on gender issues*	*Veena Mistry*
7.	*Early childhood care and education with focus on substantive and methodological issues*	*Prerana Mohite*
8.	*Special education in India with special focus on learning disabilities*	*Baljit Kaur & Pratibha Karanth*
	Family and Child Welfare	
9.	*Child welfare with focus on policy issues*	*Sindhu Phadke*
10.	*Family and child welfare with special focus on gender bias*	*Usha Abrol*

11.	*Child care strategies in India : Problems and prospects*	*Sukhdeep Gill*
12.	*Mental health : Linkages between human development & family studies and psychopathology*	*Malavika Kapur*
13.	*Interface between child development and paediatrics - Meeting of minds*	*Pratibha Singhi & S.Radhika*

Human Development

14.	*Female adolescent identity : A model*	*Neerja Sharma & S.Anandalakshmy*
15.	*Using ethnographic methods in human development research*	*Meera Oke*
16.	*Development and field testing of simple indicators of psychological development of rural children 0-6 years of age*	*Shahnaz Vazir*
17.	*Theoretical despairs and methodological predicaments of developmental psychology in India : Some reflections*	*Ajit Mohanty & P. Prakash*
18.	*Some methodological issues related to research in developmental phychology in the context of policy and intervention programs*	*Durganand Sinha & R.C. Mishra*
19.	*Nature of knowledge in developmental psychology : Some reflections*	*Uday Dash**

** These papers were not presented at the Symposium as the authors were unable to attend.*

APPENDIX C

SYMPOSIUM 1990

Guidelines for Univesity Teaching Departments

How to increase the sensitivity to the Indian context in the teaching-learning situation of post graduate training in Child/Human Development, Psychology, Social Work and Education.

1. *Use the Orientation Course/Refresher Training Course for college teachers for shifting the teachers' orientation of dependency on Western literature/texts alone, to a balanced use of key Indian references.*

2. *All concerned departments be encouraged to make a concerted effort towards revising their syllabi as well as examination questions to reflect more contemporary concerns and contextualize the same in the Indian setting.*

3. *Set up a tradition of including a prominent survey of Indian literature in the Review section of Masters, M.Phil, and Doctoral dissertations.*

4. *In order to prepare ecologically valid tests in the Indian contexts, test construction needs to be treated as a legitimate and priority area of research for departmental research activity. In conjunction with such departmental projects, the choice of Test Construction as a priority area in M.Phil. and Ph.D. dissertations must be encouraged. If based on sound conceptual footing , and context specificity, efforts will go a long way towards creating a sorely needed pool of well constructed and ecologically valid tests in our country.*

5. *More research scholars should be encouraged to use the National Council of Educational Research and Training (NCERT) Test Library to make a considered choice regarding the use of available tests.*

6. *Departments be encouraged to make a conscious effort to exchange information on tests and bibliographic information compiled by research scholars/staff, especially when the focus is on Indian tests/references.*

7. *A concerted effort be made to introduce concepts related to policy oriented research in the post-graduate Research Methods courses. These may include units such as large scale sampling designs, multi-variate analysis, quick assessment measures, use of secondary data, etc.*

APPENDIX D

SYMPOSIUM 1990

Objectives of Task Force in ECCE

It is recommended that in order to promote the interface between research, policy and programme implementation in Human Development and Family Studies, especially in the area of Early Childhood Care and Education, a task force consisting of an interdisciplinary team of professionals be formed with the following objectives in mind:

- *strengthen the available knowledge base by providing a comprehensive framework for research in early child development, education and care.*
- *identify weak links and data gaps to provide direction to researches conducted by university departments and institutions of higher learning. The prime institutions in the field of early child development, education and care such as National Council of Educational Research and Training and National Institute of Public Cooperation and Child Development should take on the responsibility of coordinating the research efforts with the university departments.*
- *act as a watchdog to monitor the translation of research findings to policy and program implementation.*
- *co-ordinate the dissemination of information and transfer of technology.*
- *locate/identify individuals and institutions that have the know-how to strengthen the field of Early Childhood Care and Education.*

APPENDIX E

PAPERS PREPARED AT THE WRITING WORKSHOP JULY 1991

	Title of Paper	*Author*
	Group I	
1.	*Involvement of kindergarten children in enhancing communication : An innovative approach.*	*Hina Mankodi & Dropti Bhagia*
2.	*Views of primary school teachers and children on existing conditions and facilities for science experiences.*	*N. Jayapoorani*
3.	*Status of preschool education in rural ICDS projects of Ludhiana district.*	*Sukhdeep Gill*
4.	*Evaluation of non-formal preschool component of ICDS in rural and urban blocks of Haryana.*	*Reetinder Mahli*
	Group II	
1.	*Parent's involvement in adaptive behaviour of the mentally retarded children.*	*S. Kamala*
2.	*The invisible beggar child on the streets : Perspectives and ethical issues.*	*Suman Verma*
3.	*A comparative study of the anxiety level of orthopaedically handicapped adolescents and normal adolescents.*	*Shirly Kurian*
	Group III	
1.	*Attitudes of youth towards divorce across four religious communities.*	*Suja Koshy*
2.	*A study on factors affecting marital adjustment of working women.*	*Minoti Phukan*

3.	*A comparative study of marital adjustment of women employed (outside home and self employed) and non-employed.*	*Darshan Narang*
	Group IV	
1.	*Child rearing practices among the Hindus, Muslims and Christians in the city of Madras.*	*Sabira Nizamuddin*
2.	*Girl child in a Bhil community : A brief profile with special reference to her socialization.*	*Shobha Nandwana*
3.	*General care practices of neonates and their influencing factors.*	*V.N. Patnam*
	Group V	
1.	*Connotations of blood : Reflections of adolescent school girls (13-17 years).*	*Rajni Dhingra*
2.	*Study of some correlates of parent-adolescent conflict.*	*Juri Barooah*
3.	*Status paper on Balsevika Training Programme.*	*Reeta.B.Mehta*
4.	*Mother's attitudes and children's play.*	*Meera Oke & Pradnya Patel*

APPENDIX F

Welcome Address by Prof. Amita Verma
Hon. Director, WHODSIC Project,
Dept. of HDFS, Faculty of Home Science,
M.S. University of Baroda, Baroda.

I feel privileged to have this opportunity of extending a warm welcome to you all this morning for the inauguration of the IDRC network conference. For the participants of the networking project this is indeed a special day as it marks the culmination of two and a half years of hard work. For the Heads of sponsoring organizations who may be present on this occasion, I'm sure its a matter of great satisfaction that by supporting a member of their faculty they have now acquired a person with a heightened interest and skill in research who can act as a resource person at the faculty level.

We owe a special debt of gratitude to the resource persons who have been with us over a period of time and who have given their time very generously for our project and of course have provided help, guidance and advice and thus enriched the contributions of these budding young professionals. The resource persons who have kindly accepted our invitation to be with us for this conference also deserve our grateful thanks.

We greatly appreciate having our Chancellor in our midst. Her gracious presence always inspires us and whenever we feel down in the dumps, her help and sane guidance sees us through our 'low' periods.

We of course owe a debt of gratitude to the Dean and various administrative heads of the university and to the syndicate for facilitating our work.

At the risk of being scolded, I will say that the guiding force behind this great effort is Dr. T.S. Saraswathi, who occasionally throws a temper tantrum or two but without whose meticulous planning and attention to every single detail, this project would never have achieved the success it has.

Since Dr. Saraswathi will be talking in greater detail about the objectives of this project and will also share with you the pleasures and pains experienced by us as the organizers, I would like to make a few comments about this concept of networking which is rather unique. It has some rather distinct advantages :

(1) It provides opportunities for supporting and receiving support from other individuals carrying out research.
(2) It strengthens ties and leads to linkages between individuals and institutions working towards common goals.

(3) It provides opportunities for sharing and exchanging ideas, information and resource materials.

(4) Finally, it creates a pool of data which when put together systematically and meaningfully can make a useful addition to the rather meagre knowledge that we seem to have concerning various aspects of HDFS.

For the individuals who have been involved in this networking project we are aware that there have been very substantial gains but being essentially an administrator, I am interested in having some frank statements from the Heads of Institutions who have sponsored and supported these candidates. Such networks would prove much too costly and time consuming if only single individuals benefit from their involvement. We are interested in helping to create a research 'ethos' which has been sadly lacking in our Home Science Institutions. We are also concerned about the lack of published material available for our young professionals. We also have few culturally relevant tools at our disposal. We are also rather concerned about the fact that we tend to work in isolation, our researches at the insitutional level are confined to 'small' exploratory studies. Our approach to research is a bit adhoc resulting in studies done in a piecemeal fashion. We need to come together in our own institutions and also coordinate our research activities with other institutions as well as other disciplines within our own institution. While I say this, let me also say that my own efforts in another networking project with a distinct interdisciplinary flavour are far from encouraging. As a colleague jokingly put it, we are not even prepared to have a cup of tea at the same table, let alone working together on a research project. It is most regrettable that we are arrogant, we do not respect each other's disciplines, we sit and guard our own territories jealously and thus deprive ourselves and the world of insights that different disciplines can contribute to any one topic of interest. I do hope that such networks can help in breaking down such barriers. I once again welcome you and thank you.

APPENDIX G

Inaugural Address by Dr. (Smt.) Mrunalini Devi Puar
Chancellor, M.S. University of Baroda,
Baroda.

It gives me great pleasure to inaugurate the proceedings of this Conference organized under the auspices of the IDRC-HDFS Research Network, more so when it is being organized by the Department of Human Development and Family Studies of the Maharaja Sayajirao University of Baroda.

In these closing years of the XXth century, when all of us are to some degree overtaken by the quickening pace of history and its unexpectedly far-reaching changes in populations and governments; men, women and families throughout the world are having to face up to formidable problems. Scientific and technical progress, however fast and incredible, had been unable to extend its magical touch as far as the most common place areas of daily life which remain a source of much suffering for the largest part of the world population.

We are able to create cold and heat, but cannot supply our rural women enough fuel to cook their food; we can light, but the farmers have no regular supply of electricity to see and work at night; we can fly, but children in the remote countrysides still have to cover huge distances on foot, if they want to find a school where they can learn to read and write, and the women in desert areas have to travel miles to get a pot of potable water for their households. The dichotomy has not been bridged, and indeed is growing between the 'developed and developing' world.

Home Science which is an unassuming science, has been recommending solutions to these problems for several decades. The modest nature of Home Science solutions are probably not taken seriously because of the still persistent habit of giving preference to gigantic technical and engineering schemes and macroprojects without much thought or proper consideration to their interactions.

Fundamentally, Home Science sets out to launch projects on an individual and family scale, seeing the family as the basic cell of human society, which consumes as well as produces. However, there is a belief in industrialized countries, that the family produces less and less and consumes more and more. What they forget is that even for these highly developed societies, the family produces what is most vital for the future of mankind : the men and women of tomorrow. The family produces children, feeds them, educates them, and inculcates moral and cultural values - an achievement that cannot be denied.

It is also true that the family passes on values that we regard as retrograde. And this is another reason why we need to concern ourselves with what goes on within the family *environment, and help families distinguish progressive humane values from those that represent only outdated ways of living. Here I am thinking in particular of the various aspects of the condition of women and girls, whose second-class status is often perpetuated with the complicity of the family.*

Unfortunately in India, the professionalization of Home Science has yet to find a firm footing in terms of establishing a strong knowledge-base in its various subject matter areas, conducting collaborative researches, building a culturally relevant curriculum and disseminating available information. There are a few pockets of excellence, but we have a long way to go in building up a proper second line of excellence. Involvement in faculty development programmes such as the one undertaken by the IDRC-HDFS Research Network can contribute significantly to our endeavour to strengthen Home Science in general and Human Development and Family Studies in particular.

Alumni from Departments of Human Development and Family Studies, as also those from the other areas of specialization of Home Science occupy positions of significance in practically all major institutions in the country and abroad. Hence, to me, expanding the Network is both feasible and desirable.

As the next President of ARAHE, i.e., the ASIAN REGIONAL ASSOCIATION FOR HOME ECONOMICS, and as the immediate past President of the HOME SCIENCE ASSOCIATION OF INDIA, I find it heartening to note the Research Network's role in strenghtening research competence of young professionals in sister institutions across the country. Most of the participants, I understand, still have several years of active career before them. I hope they will get plenty of opportunities to put to use and share with their colleagues the lessons they have learnt by participating in the Network's activities.

Building the HDFS Research Network is one of the major thrust areas of the HDFS Department's UGC-DSA Programme. As Chancellor of this University, as a home scientist and as an alumnus of this institution, I would like to see all the other departments of the Faculty of Home Science undertake ventures of this kind so as to establish stronger professional linkages among sister institutions. We need to learn to be less insular and reach out more. The need of the hour is to grow collectively and not promote the individual cult. Only then can we grow and also help others grow and thereby strengthen the field and profession.

In conclusion, I heartily congratulate Dr. T.S. Saraswathi and her band of dedicated workers for successfully steering the IDRC-HDFS Research Network to its final phase. Some of them have been my own teachers and colleagues so I know how much planning and hard work must have gone into this project until now. I wish the organizers and the participants all the best in their professional endeavours and I hope to see them extend their horizon to include participants from other Asian countries. We have so much to offer. I have no doubt that our University will extend all possible support to this promising undertaking. As President Elect of ARAHE, I also look forward to greater interaction in this subject.

APPENDIX H

Summary of Keynote Address by Mrs. Mina Swaminathan
Director, Project ACCESS,
Action for Child Care and Education Services,
Madras.

A VIEW FROM THE FIELD

A field worker is essentially a consumer of research since research can offer a conceptual framework, insights and planning strategy for work in the field. That is why field workers like to keep in touch with ongoing research. But the consumer can also give valuable feedback. Here are some notes from the field in the form of six simple homilies.

1. Be Purposive

There could be very mundane purposes to carry out research, such as bread and butter, as course requirement, for promotions, etc. But meaningful research in a poor country should be related to some social policy for development in some way or the other. Often topics are selected because there has been a wave of fashion emanating from somewhere else e.g., validating Piaget's work or copying Headstart. In Social sciences we cannot afford "research for research sake". Instead of restating the obvious, research should look for reasons why things happen as they do and apply the findings to social policy.

2. State Your Bias

Acknowledge your biases, become aware of them and state them. Awareness is half the battle in overcoming bias. The earlier expectation was that researchers should be bias-free, value-free. However, in reality no research is value-free or bias-free but awareness of bias is important. For example, the speaker confesses of being a dyed-in-the-wool Nehruvian socialist of 50's vintage, who has had a life long flirtation with Marxism and a deep commitment to feminism. She is aware of this bias and willing to be judged by it. The sharp discrepancy between book information and reality can often be explained by this non-awareness of the framework and its bias.
For example,

- *Women are discussed paradoxically as supplementary wage-earners but they work for 14 hours on an average while men do 6-7 hours only.*
- *The perception of work is, being employed in the organised sector, an illusion both men and women share.*
- *The answers given by women during field work cannot be taken at face value, as being trapped in their own biases, they often do not define housework as 'work'.*
- *With the industrialization in 18-19th century, the concept of 'house wife' came into use when production went out of the home and into factories. These perceptions represent a late 19th century, capitalistic, patriarchal, post-industrial, male-oriented view point. Are we aware of that?*
- *Yet, 80% of the population is in the unorganised sectors and women are largely*

performing non-monetised tasks. Therefore, there is invisibility of women's labour. We seem to be living with an out-dated world view even in the 21st century.

- Another example is the failure to recognise the millions of single parents in our country. Wives of migrant labourers in the country, female-headed families who are bringing up entire families are not recognised as such because we define single motherhood according to Western norms.
- As regards the joint family also we have a split perception. We do not define the family over a period of time. Cross-sectional methods and photographic methods do not yield the full story and give a split perception. To see whether the family structure is on the decline we need new methods of studying the family. We need to use longitudinal studies which can reflect trends and changes.
- Further, upper class/caste land owners may have joint families, but not the working class/farm labourers. The new urban middle class prefers a form of interdependence between generations because they need child care. So we need to pay attention to methods used for assessing different areas of study as well as to built-in biases.
- Child care is yet another area which needs to be viewed more realistically. What is the effect on children's development of mutiple caretakers, since Indian women are not the sole or primary caretakers? Can we look at the language development of children in relation to multiple caretaking and of the possibilities of children acquiring different language codes and modes of discourse as a result? This could have profound effects on pedagogy. For example, instead of concentrating on eradication of bad language of slum children, teachers could think of offering alternative languages which can be used in different contexts.

3. Be Eclectic in Method

Methods need to be chosen carefully as every method has its strengths and weaknesses, and each serves a different purpose. There are fashions in methodology too, the present 'rage' being ethnographic. A good mix of methods tailored to various purposes would yield a holistic picture.

4. Be Smart

Researchers cannot afford to be naive. There have been very famous examples of disaster following naivete. "Do not take things at face value", or "do not believe everything you hear".

Everyone has different reasons for giving different responses. A mixture of research methods is therefore necessary. Develop research methodology that makes you more perceptive, receptive and sensitive as a field worker.

You cannot afford to assume that respondents will give you true and honest answers. Why should they?

5. Be Ethical

Don't make victims out of the respondents, who are often never told the purpose or rationale of the study. There should be a purpose which you can share with the sample and make the research useful to them as well as to you. Dissemination of research should include the respondents so that they too can make some use of it. While every researcher is not expected to become an activist, they need to put in some budget for this kind of 'activist' work. How this is done and how to communicate the information to respondents is a challenge to researchers. Participatory research is one way to approach this issue.

6. Go Cross-Cultural

Why should Indian social sciences not take the lead in being cross-cultural in research? Most cross-cultural research orginates in the West and usually assumes the Western world view or conceptual framework as the reference point, comparing it with other cultures. The main divide is in terms of West/Non-West, which is narrow as well as unfair to the major (Non-Western) civilisations and world views of the world. Why not take the frame of reference (if we can locate it) and compare it with others, thus overcoming the tired old West/Non-West approach and infusing new life into cross-cultural studies? Some suggestions for cross-cultural research in Asia :

- *Why is our's the only country where the girl child does not go to school ? Is it because of the responsibility for child care ? Or are there other reasons ? How do other countries handle this problem ? In the Phillipines, for example, large families with 6-7 children are the norm but all go to school. Women's education is actually higher than that of men at every level. Boys are withdrawn at all educational stages for work while girls may continue. Girls' education is not sacrificed at the altar of child care. What lies behind these differences ?*
- *In the developing world as a whole and outside communist countries India has an impressive record in child care. Yet family day care is not very popular in our country. We are addicted to institutional child care. Why ? Is it to do with caste barriers or the attitudes of the funding agencies? In Vietnam there is a huge network of family day-care generally by the grandmother, and this approach is common in many Latin American countries too.*

These differences are also worthy of being explored. Liberation from neo-colonialist attitudes and awareness of the interests of funding agencies can help us to move towards more socially relevant research.

APPENDIX I

PRESENTATIONS AT THE FINAL WORKSHOP

Topic of Research	***Researcher***
1. Acquisition of Marathi : Error Pattern Analysis	*Suja Koshy*
2. Acquisition of Assamese : Error Pattern Analysis	*Minoti Phukan* *Juri Barooah*
3. Assessment of Self-Esteem in Women	*Visala Patnam* *Shobha Nandwana*
4. Time-Use by College Students	*Suman Verma*
5. Mother's Work and Child Care.	*Sukhdeep Gill* *Sabira Nizamuddin* *Rajni Dhingra*
6. Developing and Implementing an Infant Stimulation Program to Mothers Through AWWs	*Amrapali Bakshi*
7. Female Portrayals on Television : Viewer's Perception	*K. Mayuri*

APPENDIX J

Valedictory Address by Prof. R.C. Tripathi
Head, Dept of Psychology,
University of Allahabad, Allahabad.

Professor Tripathi, in his address, emphasized the following points :

Some Assumptions and Values of Networking

- *The world is one and co-operation is better than competition.*
- *We function in limited resource environments and it is better to create conditionsin which systems and individuals will grow.*
- *Networkers subscribe to a certain model of man.*

Reasons for Networking

- *One has perspective but considers it inadequate and wants to be efficient in terms of time use and effort.*
- *Getting together individuals with similar ideology so that one can influence certain decisions related to policy.*

Examples of Ongoing Networks

- *Training individuals in a particular discipline.*
- *Co-ordinating activities in a specific area with individuals in different geographical regions.*
- *Sharing expertise and information and giving direction to various studies.*

Problems and Prospects in Networking

- *Dominant model in psychology and social sciences allows for disjunction between research and networking.*
- *The hypothetico-deductive model in psychology and social sciences leads us to identify causes of all phenomena, whereas we need to go further, explain and predict.*
- *Pinpointing causes is difficult since we live in open systems, therefore the best we can do is to focus on intuitive understanding of patterns.*
- *In order to succeed, instead of talking of competition and control, maximise embeddedness of all individuals in the system.*
- *Cross-cultural research often gets initiated in other countries (especially Western) and foreign scholars come to India with theoretical models to be tested. This trend may be discouraged and alternate models should be evolved, especially for approaching areas of research (e.g., intergroup relations) wherein we as Indians are in a privileged position.*
- *In large scale network projects (e.g. CIDA in Department of Psychology, Allahabad) concerns such as effects of receiving large amounts of money must be addressed.*

In such projects one needs to take concrete steps to retain one's identity.

- A project can involve the whole staff and allow for each one to pursue own interest areas (e.g., OMNIBUS ongoing project in Department of Psychology at Allahabad).

Certain hunches regarding what facilitates collaborative projects.

- Similar conceptual background for network participants.
- Interpersonal trust and respect among members and commitment to network.
- Participants should acculturate emotionally, socially, behaviourally and cognitively to the concept of NETWORKING.
- Lines of communication must always be kept open (e.g., number each letter and keep track).
- Some networks begin with models, others need to evolve them.

The IDRC Network

- Where can we go from here ?
- Network needs to involve more people such as senior professionals.
- Objectives of network need to be reviewed for purposes other than research alone. Must explore possibility of data archives that can be used by senior professionals later for better research and intervention.

In conclusion, Prof. Tripathi used the analogy of a beautiful banyan tree to describe the network. The branches have now become trees. However, the interdependence must continue.

APPENDIX K

MSUB CORE CONSULTANTS HUMAN DEVELOPMENT AND FAMILY STUDIES DEPARTMENT, M. S. UNIVERSITY OF BARODA, BARODA

Name	***Present Position***	***Specialisation***
T.S. Saraswathi	*Professor*	*Developmental Psychology*
Amita Verma	*Director, Women's Studies Research Centre.*	*Early Childhood Education Women's Studies*
Veena Mistry	*Professor*	*Early Childhood Education*
Baljit Kaur	*Reader*	*Developmental Psychology (Learning Disabilities)*
Shagufa Kapadia	*Lecturer*	*Child Development*

APPENDIX I.

RESOURCE PERSONS

Name	***Specialisation***
1. Dr.Ajit K. Dalal *Dept. of Psychology,* *University of Allahabad,* *Allahabad - 211 002* *U.P.*	*Psychometrician Social Psychologist/Community Psychologist.*
2. Dr.Uday Dash *Dept.of Psychology,* *Utkal University,* *Vani Vihar,* *Bhubaneshwar - 751 004* *Orissa*	*Psychometrician Developmental Psychologist interested in cognitive development, schooling, literacy and learning problems.*
3. Dr.Barbara Isely *Samiyarpatti (Post),* *Gandhigram (Via),* *Dindigul Taluka,* *Tamil Nadu - 624 312.*	*Sociologist currently researching on gender roles in rice farming systems in Tamil Nadu.*
4. Dr.Pratibha Karanth *Dept. of Speech Pathology,* *All India Institute of* *Speech and Hearing,* *Mysore - 570 006.*	*Specialist in Speech and Hearing Disorders/Language Development.*
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6. Dr.Girishwar Misra *Department of Psychology,* *Barkatullah University,* *Bhopal - 462 026.* *M.P.*	*Social Psychologist with an interest in applied social psychology, particularly deprivation and its psycho-social consequences.*

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